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ARCHAEOLOGY OF FINNISH WETLANDS

WITH SPECIAL REFERENCE TO STUDIES OF STONE AGE STATIONARY WOODEN FISHING STRUCTURES

Satu Koivisto

ACADEMIC DISSERTATION

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ABSTRACT

This study seeks to draw attention to the lack of knowledge of and the small amount of research dealing with archaeological cultural resources in Finnish wetlands, as well as to demonstrate its huge scientific and interpretative potential. To this end, the study presents a compilation of Finnish wetland archaeological sites, contextualizes and evaluates them with the help of archaeological, environmental, and ethnographic data, and offers an assessment of areas with the highest potential for encountering new sites. The scientific and interpretative potential of Finnish wetland archaeological resources is then illustrated with the help of two case studies representing stationary wooden fishing structures associated with Stone Age fishery sites. The prehistoric fishing theme involves a detailed examination of the fishing structure types and the estuary fishing methods, as well as their contextual circumstances, which provide an analytical framework explicating and illuminating this as yet unexplored archaeological evidence. Finally, the study seeks to further our knowledge concerning the detection and prospection of archaeological sites situated in demanding wetland settings with the help of geophysical testing and trial excavations conducted within stationary wooden fishing structures.

The total number of wetland sites has multiplied in the course of this study, even though it is still very low when compared to the extensive area of Finnish wetlands. The areas with the highest wetland archaeological potential in Finland are located in river estuaries, coastal areas affected by strong isostatic rebound, and terrestrialized lakes. Today, stationary wooden structures associated with fishing sites represent the most typical wetland archaeological resource in Finland. The case studies described in this work demonstrate that these wooden archaeological remains yield valuable evidence for investigating fishing methods, technological adaptations, and modes of subsistence among prehistoric populations. The lack of viable techniques for the detection and prospection of sites has been hindering wetland archaeological research in Finland. The most crucial threats to the preservation of our organic archaeological resources situated in wetland landscapes are drainage, peat extraction, acidification, and climate change.

ACKNOWLEDGEMENTS

At an early stage of my journey as an archaeology professional in 1996, I had the opportunity to participate in a multi-year wetland archaeological fieldwork project at Purkajasuo Mire in Yli-Ii, northern Ostrobothnia. Before that point, I had only briefly touched upon wetlands and prehistoric organic materials thanks to series of lectures given by our late Professor Ari Siiriäinen, who had a personal interest in wetland archaeology, having excavating several Finnish 'classic' wetland sites such as Kierikkisaari Island in Yli-Ii, Kärräniemi Island in Rovaniemi, and Järvensuo Mire in Humppila. At the very moment when the first wooden artefacts underlying the nearly two-meter-thick peat and alluvial layers began to emerge at Purkajasuo, I understood that I was witnessing something unique and archaeologically significant, something that was also to gain very special importance in my own perspective in the years to come. The remarkable preservation and huge volume of the archaeological wood material dating back more than 5000 years was something that I had not even dreamt of in a country known for its poor organic preservation in dryland sites. Already when recovering the wooden artefacts in the muddy wetland trench in the late 1990s, we joked with the other excavation workers that I would most probably write my doctoral thesis on the Purkajasuo wood materials, or more precisely on a specific birch bark binding technique of the lath screen fishing structures, which of course amused us a lot back then. I must admit that this topic did not leave me be until I reached this point, even though it has taken me a long time and a huge amount of determination to be able to finalize this project. Throughout the process of conducting my wetland archaeological studies and writing this dissertation, the dearth of wetland archaeological research in Finland has been the driving force that kept me going. Therefore, the Purkajasuo site plays a very special role in this dissertation, not only in having provided me with a case study for research, but also as a lens through which I have sought to explore the various nuances of the Finnish wetland archaeological cultural heritage in general, something that I never imagined during those years of wading in the wetland trenches in Yli-Ii.

Good organic preservation is typically the first issue that is highlighted when wetland archaeological resources are concerned. After being involved with the Purkajasuo materials and later with my other wetland projects as well, it has been quite difficult to adjust myself to dryland archaeology in my work as a field archaeologist. One of the most striking issues to me is the representativeness of the archaeological record. Without the exceptional preservation conditions for organics at Purkajasuo, only a handful of pebbles (and two amber pendants) would have been recovered at the site and we would not have had a clue of the over 5000-year-old elaborate carpentry and birch bark binding techniques. Because of this, I have a constant problem in making

assumptions and interpretations concerning past lifeways based on the materials recovered at dryland sites.

As already stated, the research process associated with the finalizing of this thesis has been lengthy and laborious and I have conducted a huge amount of work on my own time in between working periods that I dedicated solely to writing this thesis. Due to the periodical nature of conducting research and writing, I chose an article-based dissertation structure already at the beginning of this project in order to be able to finalize one piece at a time and then move to the next theme. Actually, the structure and method chosen seem to agree relatively well within this type of topic, because now the articles may be seen as individual entities and they may be read independently. The Finnish Graduate School in Archaeology, the Finnish Cultural Foundation, and the Finnish Academy of Science and Letters (the Jutikkala fund) have provided me with financial support that enabled me to write this dissertation. In addition, the project Lost Inland Landscapes at the University of Helsinki (three-year research grants) provided support for finalizing this work. My deepest gratitude goes to all the above mentioned. Because I have done a lot of work on my own time while working at the NBA, I would like to express my greatest gratitude to my wonderful working community at the Archaeological Field Services, especially our Chief Intendant Marianna Niukkanen, for constant support, encouragement, and understanding in my struggle with this academic milestone.

I am most indebted to my supervisors, Docent Jarmo Kankaanpää and Professor Mika Lavento, for their tireless support and belief in my work and in the special importance that wetland archaeology bears in Finland. I must admit that I have not been an ideal PhD student for them, because I have used such a long time for finalizing this project and been involved in so many other things during this time. Nevertheless, my supervisors have never (I hope) lost their faith in me and they have clearly affirmed the importance of my work, which of course has boosted my self-assurance in concluding this project. In addition, Jarmo has tirelessly revised my English texts and helped me with terminology of which I cannot thank him enough. I would also like to thank the pre-examiners, Professor Tony Brown and Dr. Valdis Bērziņš, for their constructive comments and encouraging feedback on this work.

I would furthermore like to offer my greatest gratitude to my co-authors, Katariina Nurminen, Niko Latvakoski, and Wesa Perttola, for helping me with the research process and the articles. My friends, colleagues, family members, and institutions, at home and abroad, who have supported me in numerous ways in the course of this project are warmly thanked: the University of Helsinki, the University of Oulu, the National Board of Antiquities, the Kierikki Stone Age Centre, and the whole excavation crew at the Purkajasuo site and especially its excavation leader, Hans-Peter Schulz, my colleagues and

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Finally, yet importantly, I would like to dedicate this work to all Finnish field archaeologists, the good people who are struggling so very hard in demanding conditions, most of the time with inadequate resources, and trying to do their best to promote Finnish archaeology. Let us keep our flag flying and try to find new ways to improve the current situation. Moreover, do not forget the wetlands in your work!

Helsinki August 2017, Satu Koivisto

Me, documenting the wooden finds at the notorious trench no 7 at Purkajasuo in 1997, where ground water covered the newly excavated layers extremely rapidly. Photo by Hans-Peter Schulz, National Board of Antiquities (AKD39192).

CONTENTS

LIST OF ORIGINAL PUBLICATIONS

This thesis is based on the following publications:

I Koivisto, Satu (2011). Wetland archaeology in Finland – Sites and settlement in a changing environment. In E. Pranckenaite (ed.) *Wetland settlements in the Baltic Sea area – Prehistoric perspective*: 31–53. Vilnius: Centre for Underwater Archaeology.

II Koivisto, Satu (2012). Subneolithic fishery in the Iijoki river estuary, northern Ostrobothnia, Finland. *Journal of Wetland Archaeology* 12: 22–47.

III Koivisto, Satu & Nurminen, Katariina (2015). Go with the flow: Stationary wooden fishing structures and the significance of estuary fishing in Subneolithic Finland. *Fennoscandia archaeologica* XXXII (2015): 55–77.

IV Koivisto, Satu, Latvakoski, Niko & Perttola, Wesa (accepted manuscript). Out of the peat: Preliminary geophysical prospection and evaluation of the mid-Holocene stationary wooden fishing structures in Haapajärvi, Finland. *Journal of Field Archaeology* (2018).

The publications are referred to in the text by their roman numerals.

The author's contribution to publications III and IV:

III SK designed the study, collected and analysed the data among the stationary fishing structures and related materials in Finland and the Baltic Sea area and wrote the manuscript. The fish bone taxa were provided by KN. The revision of the final draft was done by both authors.

IV SK designed the study and conducted the fieldwork with NL and WP. The fieldwork data was analyzed by all authors, except the geophysical data, which was analyzed and visualized by WP. SK collected the data for the paper and wrote the manuscript, which was then polished and revised by all authors.

LIST OF SYMBOLS AND ABBREVIATIONS

σ	Standard deviation (sigma)
AD	Anno Domini
CE	Common Era
asl.	Above sea level
AMS	Accelerator Mass Spectrometry
BC	Before Christ
BCE	Before the Common Era
BP	Before present
cal	Calibrated radiocarbon age (in calendar years)
DEM	Digital Elevation Model
DTM	Digital Terrain Model
EMI	Electromagnetic Induction
ER	Electric Resistivity
ES	Ecosystem Services
GIS	Geographic Information System
GPR	Ground-Penetrating Radar
HTM	Holocene Thermal Maximum
KM	National museum (Fi. *Kansallismuseo*) collection number
LiDAR	Light Detection and Ranging
MBES	Multibeam Echo Sounder
n	Total number
NBA	National Board of Antiquities
NM	National Museum (of Finland)
PEG	Polyethylene Glycol
SIP	Spectral Induced Polarisation
WARP	Wetland Archaeology Research Project (at University of Bradford)
WHO	World Health Organization
14C	Radiocarbon

1 INTRODUCTION

1.1 BACKGROUND AND RESEARCH ENVIRONMENT

Organic materials from prehistory are very seldom preserved in Finnish soils. The acidity, relative dryness, climatic conditions, and a milieu rich in micro-organisms further the deterioration of organic materials on dryland sediments. The unusual preservation conditions of these materials within wetland sites under anoxic, saturated sediments yield valuable sources for investigating past populations and their material culture record and subsistence strategies. It has been suggested (e.g., Coles 1987: 13) that in many cases less than 10% of the material culture record has been preserved at dryland sites, depending on the sedimentological characteristics and the (post)depositional processes involved. However, our conceptions and interpretations based on the archaeological assemblages recovered from dryland sites alone may be considered severely limited. Wetland archaeological resources may, therefore, be seen as an essential component in the archaeological puzzle reflecting human lifeways and the material culture of the buried past.

The huge scientific value of wetland archaeological sites and the sedimentary record of their associated layers, i.e., *the archaeo-environmental record of wetland resources* (e.g., Gearey & Chapman 2004), has been well attested to in several studies (e.g., Keller 1866, Clark 1954, Coles & Lawson 1987, Coles & Coles 1991; 1996). Due to the richness of the archaeological and palaeoecological record preserved in these watery habitats, wetland archaeology has evolved into one of the most multidisciplinarily oriented and active interfaces between the humanities and the natural sciences. Wetland archaeology has often been referred to as a subdiscipline of 'mainstream' archaeology, concentrating on sites and settlements associated with wetlands (e.g., Menotti 2012). These environments comprise a whole variety of wet habitats, such as bogs, mires, fens, estuaries, tidal flats, shallow lakes, and alluvial landscapes. Wetland archaeology differs from underwater archaeology in concentrating on sites and areas that are periodically or permanently waterlogged. A clear distinction between these two archaeological subdisciplines is sometimes hard to draw, which has also caused much confusion.

Wetland archaeology is of considerable relevance in Finland because we live in one of the most mire-rich countries in Europe. Approximately one third of our total land area is covered in peatland deposits (Seppä 2002). Therefore, peatlands are very topical for this study because they constitute central habitats for the occurrence and preservation of the Finnish wetland

archaeological resources. The dynamic ecological and geological character of northern Fennoscandia has resulted in large-scale environmental changes throughout the Holocene (e.g., Kulkova *et al.* 2016). This is also central in the initiation history of mires. Strong isostatic land uplift and climatic variation have contributed to the accumulation of our huge peatland areas. Paludification (i.e., mire initiation) is closely connected with climate and precipitation. The accumulation of peatlands has been intensive in southern Finland during climatically moister periods, such as between 8000 and 7000 cal BCE and from ca. 4500 cal BCE onwards (Korhola 1995a: 43–58). Based on current knowledge, lake terrestrialization (that is, the infilling of lakes) has taken place more frequently than previously thought (Huttunen & Tolonen 2006). In the terrestrialization process, the hydroseral succession from open water to mire vegetation is driven by various sedimentological and biological factors. Terrestrialization is closely related to climatically drier periods and natural lowering of the water level, especially in the period between ca. 7000 and 4500 cal BCE (Korhola 1995b: 11–21). As much as ca. 13% of the mires in Lapland and northern Ostrobothnia and nearly 50% of the southern Finnish peatlands have been initially formed through lake terrestrialization (Huttunen & Tolonen 2006: 79–88).

Peatlands consist of organic soils that typically provide advantageous anoxic, moist conditions for the preservation of organic archaeological assemblages. However, peatlands vary in their chemistry and hydrology (for example, in the solution pH and the water level), which interact with the prevailing vegetation composition (Laiho 2006: 2011) and thus determine the type and characteristics of the peatland in question. Traditionally, the concept of a mire has been relatively broadly understood in Finland. This has resulted in several combinations of bog types (Fi. *suoyhdistymä*) having been referred to in literature (e.g., Laine & Vasander 2005, Lindholm 2013). Paludification (Fi. *soistuminen*) takes place in areas where the annual rainfall is high and the rate of evaporation in turn is low (Seppä 2002: 43–60). The melting waters of the considerable snowfall in the northern latitudes have also affected the formation of mires. Locally, river flooding may also further paludification due to the seasonal rise of the water level. As much as ca. 60% of the Ostrobothnian peatlands have been initially formed through primary paludification because the region is very low-lying and belongs to the area of strong isostatic rebound (Seppä 2002).

Finnish mires are traditionally classified into three areal subgroups: (1) the raised bog zone in southern Finland, (2) the *aapa* mire zone, i.e., broad peatland with open area in its centre, in northern Finland (Fig. 1), and (3) the *palsa* mire zone, i.e., hummocks rising out of a bog with a core of ice, occurring in northernmost Lapland (e.g., Laine & Vasander 2005, Lindholm 2013).

Figure 1. A typical landscape at an open *aapa* mire in northern Ostrobothnia, Finland. Photo by the author.

The most extensive peatland areas are located in southern, central, and northern Ostrobothnia, western Finland, and in central Lapland (Seppä 2002: 43–60). Local environmental factors govern the mechanisms that regulate peat growth, which reacts very sensitively to changes in, for example, humidity and temperature. The average rate of peat growth is ca. 0.5 mm per year in Finland, but it may vary extensively (e.g., Seppä 2002). This very slow successional development of peatlands is regulated by certain autogenic and allogenic factors (Laiho 2006: 2011). Changes in land use or climate, however, may change the functioning of the peatland ecosystem rapidly and promote or delay the decomposition of organic matter. The lowering of the water table is the key factor that accelerates the decomposition process because it increases oxygen availability in the surface soil (e.g., Gitay *et al.* 2001) and provides better conditions for the existence of decomposer communities (Laiho 2006: 2019). Even small changes in the ecosystem affect peatlands, and this will be recorded in the peat stratigraphy. These changes may be traced through certain biological, chemical, and physical markers in the peat matrix. Today, most of the Finnish peatland deposits are located in agricultural and forestry management areas and almost all mires in southern Finland have been drained during the last century. Approximately one third of our mires are still in their pristine state (e.g., Laine & Vasander 2005, Huttunen & Tolonen 2006). The direct and indirect effects of drainage, peat extraction, acidification, and climate change are crucial to the preservation of organic archaeological remains in wetland environments.

1.2 OBJECTIVES AND SCOPE OF THE DISSERTATION

The main aim of this dissertation is to demonstrate the huge scientific and interpretative value of archaeological resources preserved in wetland landscapes in Finland. We have huge wetland areas, but the archaeological research concentrating on these watery landscapes has been quite scarce in our country, and the organic materials and the sedimentary record they have provided have not been adequately studied and integrated into archaeological research and discourse. Due to the vast extent of this objective, the study is divided into three sections or research subthemes that are interconnected with each other and thus form a coherent whole.

The first article (Paper I) is an introduction to the whole dissertation and forms the contextual framework for the main theme concerning Finnish wetland archaeological resources. It leads the study to more detailed subsections, which aim to demonstrate and illustrate the huge scientific potential of wetland archaeological resources with the help of two case studies – wetland archaeological fieldwork conducted among prehistoric fishery sites. Today, stationary wooden structures associated with fisheries represent the most typical wetland archaeological site type in Finland. Therefore, the case studies utilized here serve as good examples reflecting the characteristics and research potential of our wetland archaeological heritage. Furthermore, both sites were discovered in a very typical way – during drainage (i.e., artificial lowering of the peatland water level for agriculture), and thus provide excellent material for the purposes of this study. The second, third, and fourth article (Papers II, III, and IV) share the same focus in considering the characteristics, functional elements, and interpretative potential of the stationary wooden fishing structures preserved in wetland conditions. The Purkajasuo site in Yli-Ii (Oulu) with its well-preserved fishing-related finds is topical for the exploration of prehistoric fishing methods and mid-Holocene subsistence strategies. Consequently, the second and third article (Papers II and III) aim to introduce a wetland archaeological approach to the field of Stone Age studies focusing on resource procurement and subsistence strategies in coastal northern Ostrobothnia. The fourth article (Paper IV) addresses research goals relating to the detection and prospection of stationary wooden fishing structures situated in demanding peatland habitats with the help of another case study – the geophysical testing and ground truthing conducted at the Lamminoja fishery site in Haapajärvi, northern Ostrobothnia. The purpose of this article is to illustrate the crucial need for viable techniques for the detection and prospection of archaeological sites applicable to wetland habitats. The lack of viable and cost-effective techniques may be considered to be one of the major reasons why wetland archaeological research has been marginal in Finland, and therefore the final subsection of this work is dedicated to this important theme. Geographically, contextually, and chronologically the case studies presented in this dissertation concern the two

previously mentioned fishery sites situated in the northern Ostrobothnian peatlands, in Yli-Ii and Haapajärvi, which have been built and used by mid-Holocene (ca. 3000 cal BCE) hunter-fisher-gatherer groups.

To visualize the interconnectedness of the individual articles, their relations are illustrated in Table 1.

Table 1. *The four papers (PI–IV) plotted according to the research themes (RT) they aim to answer: (RT1) Towards a deeper understanding of the Finnish wetland archaeological resources; (RT2) Characteristics and research potential of stationary wooden fishing structures; and (RT3) Possible methods of prospecting archaeological resources in demanding wetland habitats.*

	P I	P II	P III	P IV
RT 1	X			
RT 2		X	X	X
RT 3	X			X

1.2.1 TOWARDS A DEEPER UNDERSTANDING OF FINNISH WETLAND ARCHAEOLOGICAL RESOURCES

The aim of the first research theme is to generate an overall picture of Finnish wetland archaeological resources and to review the history of their study. This is because only a few earlier attempts have been made to compile the known site record and the archaeological assemblages they may contain. In addition, the contexts and characteristics of the sites have previously been considered in a somewhat confusing manner. The current study aims to improve the situation by:

(1) Researching and compiling data about the archaeological sites associated with Finnish wetlands;
(2) Exploring the setting and the regional distribution of the sites;
(3) Reviewing the methods and techniques applied; and
(4) Outlining the most topical issues facing wetland archaeological research today.

The first article (Paper I) is a research historical review that compiles and explores the recovery, context, and areal distribution of the wetland archaeological sites in Finland. It seeks to consider the following questions: what is the number of archaeological sites associated with Finnish wetlands, do the distribution and setting of the sites play a role in the preservation and research potential of the archaeological materials, have there been attempts to develop methods and techniques in wetland archaeological fieldwork, and

what are the most pressing issues facing wetland archaeological research today?

There is an obvious need to contextualize Finnish wetland archaeological resources, which is one of the aims of this subsection. In many of the previous archaeological studies concerning Finnish wetlands and organic materials recovered at these sites, a distinction between a *site* and a *stray find* has been somewhat confusingly outlined and therefore requires some clarification. The Bank of Finnish Terminology in Arts and Sciences (http://tieteentermipankki.fi) defines an archaeological site (Fi. *kiinteä muinaisjäännös*) as "a remnant of human activity in its original location as protected by the Antiquities Act (295/1963), including its cultural layers, structures, and artefacts". A stray find spot (Fi. *löytöpaikka*) is defined as "a geographical location where an artefact has been found but which has produced no evidence of an archaeological site", and is not currently under legal protection.

This study focuses on wetland archaeological sites; wetland stray finds and their find spots are excluded. The reason for this exclusion was to avoid burdening the study with an immense inventory of organic artefacts found in Finnish wetlands that would have contributed little to the main topics of the discussion. Therefore, some of the most familiar bog finds in our archaeological record, such as paddles, dugout boats, skis, and sledge runners, are not included in this work. The possibility that cultural layers, structures, and clusters of artefacts indicating the existence of an actual wetland archaeological site could be discovered at the find spots of the stray finds is, however, well acknowledged in this work and even recommended for future studies (see Chapters 2 and 6). Restricting the scope of this thesis was essential in order to avoid incoherence and dissension in its contents and discourse. Therefore, this work focuses on *archaeological sites that contain archaeological layers, structures, features, or clusters of artefacts associated with a wetland setting*. The main chronological focus is on hunter-fisher-gatherer sites of the Finnish (Sub-)Neolithic (typically referred to in Finland as non-agricultural Neolithic or pottery Mesolithic, ca. 5100–2000 cal BCE (Pesonen & Leskinen 2009)), mostly because of the mid-Holocene case studies utilized in the articles (Papers II, III, and IV), but also due to a particular personal interest in forager lifeways and their material culture record, which has guided my work.

1.2.2 CHARACTERISTICS AND RESEARCH POTENTIAL OF STATIONARY WOODEN FISHING STRUCTURES

The second research theme aims to deepen our understanding of a previously inadequately explored wetland archaeological site type, namely the stationary wooden fishing structures, and to reveal its characteristics and research potential. This is pursued by:

(1) Presenting for the first time a study of the over 5000-year-old wood material recovered at Purkajasuo in Yli-Ii, northern Ostrobothnia;
(2) Contextualizing the mid-Holocene fishery of Purkajasuo and studying the fishing methods used by the prehistoric estuary communities;
(3) Setting the Purkajasuo site in a larger geographical and archaeological context and revealing the mode of subsistence among the mid-Holocene estuary populations of coastal Ostrobothnia; and
(4) Compiling and contextualizing the stationary wooden structures associated with fishing sites in order to reveal the frequency, distribution, research potential, and age of this archaeological resource in Finland.

What is the number of stationary wooden fishing structures found in Finnish wetlands, when and how were they manufactured and used, and what is the interpretive potential of these archaeological remains for exploring the mode of subsistence of the fishing communities? These research questions are addressed in the second and third article (Papers II and III) both of which discuss the extensive wood material recovered at Purkajasuo in Yli-Ii, northern Ostrobothnia.

Stationary wooden structures associated with fishing sites have not been studied at depth in Finland earlier. Therefore, their contexts, characteristics, and dating have frequently remained unresolved and many of the wooden structures, especially the ones located in shallow water, have been automatically presumed to be from the historical period due to their location and the good preservation of the organic materials (NBA 2016).

In this study, a *stationary wooden fishing structure* is defined as a wooden structure (or dismantled parts of such structures) associated with passive fishing taking advantage of the regular movements of fish both in running and still waters. These structures may refer to wooden fish traps, lath screen panels, and weirs that have been erected and anchored in river estuaries, inlets, coves, and lakebeds. The term *lath screen fishing structure* refers to a long, fence-like construction that was manufactured from narrow pine laths of varying dimensions and bound together with ties made from birch bark strips, roots, twigs, or bast. Similar designs have been well recorded in Finnish ethnographic sources (Fig. 2). The complete fishing structures were supported by piles and stakes of varying dimensions, manufactured of various wood species, probably depending on what was locally available and best suited for

a waterlogged setting. Typically, the lath screen modules were used to build one or several circular or heart-shaped trap nests, on average a few metres in diameter, and longitudinal leading fences several tens of metres long that guided the fish towards the trapping arrangements. Separate traps, such as basketry traps and nets, may have been attached to the openings of the lath screen fences. These contrivances may also have been used by themselves, but in such cases, basketry traps and nets may be considered *portable fishing implements* because they have not been anchored as firmly to the fishing grounds as the stationary wooden fishing structures.

Figure 2. A lath screen trap in use at Lake Venesjärvi in Kankaanpää, western Finland, in the 1930s. Photo by Eino Nikkilä 1935, National Board of Antiquities (KK1739:704).

Many stone weirs, the so called Lapp weirs, have been registered as archaeological sites based on their location and oral tradition suggesting weir fishing (NBA 2016). Most of the heavier stone structures have been placed in running water, in streams and channels. The Lapp weirs are not included in this work because they represent a somewhat different type of fishing apparatus as compared with the more lightweight, wooden lath screen structures. Also, most importantly, Lapp weirs may be classified as underwater sites (at an average water depth of a few metres).

The reason why fishing structures have been conceptualized as belonging to the category of *archaeological sites* instead of *stray finds* in this work requires some explanation. They are perceived as sites due to the fact that fishing structures have been set up and anchored firmly to their locations with wooden structures, such as piles and stakes (see the note on portable fishing implements above). Based on ethnographic sources, manufacturing, setting up, and maintaining the stationary fishing structures, in addition to the fishing itself, has required a considerable amount of work and hence indicated a certain level of occupation by the site, which may have produced archaeological remains.

1.2.3 POSSIBLE METHODS OF PROSPECTING ARCHAEOLOGICAL RESOURCES IN DEMANDING WETLAND HABITATS

Because archaeological sites in wetland landscapes are so very difficult to detect, the final section of the dissertation is dedicated to one of the most challenging issues in wetland archaeology – the detection and prospection of archaeological sites in demanding wetland habitats. This is partly due to the unfortunate fact that wetland archaeological research has been marginal in Finland: in practice, there have been no viable toolkits for finding and prospecting the sites. To move forward from the current situation, the prospection theme is considered in this study by:

(1) Reviewing the methods and techniques used in detecting and prospecting wetland archaeological resources from a European perspective;
(2) Testing geophysical and archaeological prospection methods in a peatland environment at a prehistoric fishery site at Haapajärvi, northern Ostrobothnia; and
(3) Outlining the most pressing issues in managing and ensuring the preservation potential of wetland archaeological remains today and in the future.

The fourth article (Paper IV) seeks to move forward from the current inactive state of affairs and aims to deepen our knowledge of the possibilities for detecting and prospecting for archaeological remains deposited in peatland environments, which is very topical from the viewpoint of Finland's huge peatland area. The case study presented in the fourth article is among the most typical wetland archaeological remains in Finland, namely stationary wooden structures associated with fishing site at Haapajärvi, northern Ostrobothnia, heavily disturbed by improved drainage and partly destroyed by mechanical ditch digging. This study is intended to serve as a good example for illuminating the current situation in managing and prospecting wetland archaeological resources in Finland. The research questions addressed within

the Haapajärvi case study are: what is the range of techniques that have been tested in the detection and prospection of archaeological remains in wetland habitats in Europe, are there any ways to improve the detection success of geophysical techniques in demanding peatland habitats, and what kind of methodologies ought to be tested and developed further based on the Haapajärvi trials? In addition, the first article (Paper I) is partly connected to the same theme, as it aims to discover ways to locate the areas with the most potential for new sites by describing and analysing the known wetland site locations. Both articles also take a stand on the most pressing issues in managing and ensuring the preservation potential of wetland archaeological remains in Finland.

2 HISTORY OF RESEARCH IN BRIEF

2.1 THE TRADITION OF WETLAND ARCHAEOLOGY IN FINLAND

Archaeological research concentrating on wetland landscapes has been sporadic and scarce in our country, even though some of the organic assemblages recovered from wetland contexts have yielded prehistoric dates (e.g., Siiriäinen 1983, Núñez 1995, Taavitsainen 2001, Matiskainen & Zhilin 2003). Wetland archaeology has been considered difficult to conceptualize and its sites are seen as laborious and money-consuming to excavate and study. Wetland areas have typically not been included in land use planning procedures (NBA 2012), unlike areas with potential for dryland archaeology, presumably because bogs and other types of wetlands have been considered irrelevant to human habitation and resource procurement. In terms of resources, wetland habitats actually display relatively high degrees of resource productivity, diversity, and reliability compared to other settings (Nicholas 2013). The discipline has been viewed as lying somewhere between underwater archaeology and the more traditional branch concentrating on mineral-rich sediments. This brings us to the other limitation hindering the study of wetland archaeological resources, namely the challenging burial environment and the difficulties in ensuring the preservation of the archaeological materials (Fig. 3). Because deeply buried wetland sites are covered by saturated sediments, the chances of detecting them are decreased significantly and several of the most common survey and remote-sensing techniques are thus rendered inadequate. This may be assumed to be the key factor that limits taking these environments into consideration in land use planning and archaeological threat mitigation processes.

Although the history of wetland archaeology in Finland has been rather short and sporadic, there are a number of sites and researchers that call for reference (see the more detailed review in Paper I and the references therein). These include the studies conducted on the prehistoric fish nets from Antrea on the Karelian Isthmus (currently a part of Russia) by Pälsi (1920), Kujala (1948), Taavitsainen (1995), Carpelan (2008), and Miettinen et al. (2008), as well as from Pori, western Finland, by Luho (1954) and Kauhanen (1974). The archaeological fieldwork conducted at prehistoric lakeside sites in the Silmäkeneva Mire in Riihimäki, southern Finland, have been published by Matiskainen and Zhilin (2003) and Matiskainen and Ruohonen (2004). Fieldwork at the drained lake of Järvensuo in Humppila, southwestern Finland, has been published by Siiriäinen (1983; 1987). Palaeoecological and geological studies at the lakeside settlement of Pennala in Orimattila, southern Finland, have been published by Vuorela (1981), Vuorela and Aalto (1982), and

Sirviö and Kajander (2003). Several riverine and alluvial sites in Ostrobothnia, western Finland, and in southern Lapland have been excavated and published. Examples include the island of Kierikkisaari in Yli-Ii by Siiriäinen (1967), the island of Kärräniemi in Rovaniemi by Siiriäinen (1986; 2004), and the Purkajasuo Mire in Yli-Ii, northern Ostrobothnia, by Núñez (1995), Schulz (1998b), and Koivunen (2006). A suggested large timber cache from the historic period from Suojoki in Keuruu, central Finland, has been studied and published by Itkonen (1931), Pälsi (1934), Hirsjärvi (1953), Taavitsainen (1992), and Taavitsainen et al. (2007). Subfossil seal remains preserved in wetland settings in Närpiö and the Oulujoki River, western Finland, have been published by Leppäaho (1936). Studies concerning trackways and footbridges from the historical period have been studied and published by Kankainen (1988), Masonen (1988), Zetterberg (1988), and Mikkola (2015).

Figure 3. The remains of a plank-built boat were revealed at the overgrown bay of Orslahti in Virolahti, south-eastern Finland. Photo by U.T. Sirelius, 1914. National Board of Antiquities (KK1125:64).

Stray finds, mostly made of wood and found in bogs and other wet habitats (Fig. 4), have not been included in this study. This is because in many occasions there is no systematic information available on the materials or the find contexts. Many of the finds are kept in small municipal museums and are not included in the catalogue of archaeological or ethnological artefacts maintained by the National Board of Antiquities. Some of the wooden artefacts have been radiocarbon-dated, revealing that a number of them were

manufactured already in prehistoric times (see Figure 4). Certain groups of wooden artefacts, such as skis (Huurre 1998, Itkonen 1938; 1949), paddles (e.g., Vilkuna 1986), sledge runners (Itkonen 1937b; 1942, Kopisto 1964, Luho 1950, Kuokkanen 2000), and log boats (e.g., Huurre 1998) that have been studied at greater depth call for reference in this short research historical review.

Figure 4. Elk head figurine (KM 14189), made of wood and found by the marshy shore of Lake Lehtojärvi in Rovaniemi, southern Lapland, in the 1950s. The sculpture was later securely dated to the Mesolithic, ca. 6000 cal BCE. The artefact is ca. 37 cm in length. Photo by Ritva Bäckman, National Board of Antiquities (AKD17254:1).

2.2 STUDIES CONCERNING STATIONARY WOODEN FISHING STRUCTURES

Prior to this study, stationary wooden fishing structures have not aroused much archaeological interest in Finland. Lath screen fish traps have occasionally been registered and catalogued as archaeological sites or stray finds in the archives of the National Board of Antiquities and local museums. Some lath screen fish traps have been briefly mentioned in the ethnological archival sources, but many of the wooden structures themselves have been left at their find spots and have most probably decayed in the course of time. The dating result of a Stone Age lath screen fish trap found in an overgrown lake at Hiipakanluhta in Kurikka, Ostrobothnia, has been briefly mentioned in a compilation of radiocarbon dates by the Dating Laboratory of the University of Helsinki (Jungner & Sonninen 1998). In addition to Núñez (1995), Schulz (1998b), and Koivunen (2006), and prior to the current study, the stationary

wooden fishing structures found at Purkajasuo in Yli-Ii have been briefly mentioned on certain occasions, such as by Minkkinen (1999; 2000), Huurre (1998), and later by Haggrén et al. (2015). A suggested wooden fish weir recovered adjacent to a multiperiod settlement site at Hiidenniemi in Kesälahti (Kitee), eastern Finland, has been described by Forsberg et al. (2009).

Weir foundations made of stones (and occasionally containing remains of wooden structures) in riverine and lacustrine environments in northern Ostrobothnia, northwest Finland, and in Lapland are typically called Lapp weirs (Fi. *lapinpato*) or, alternatively, giant's weirs (Fi. *jättilaisenpato*) (e.g., Snellman 1887, Huurre 1983; 1991, Rankama 1991, Sarkkinen 2003, Okkonen & Heikkilä 2011, Moisio *et al.* 2012). The preserved weir foundations are still located in good fishing waters, stretching across entire river or stream channels next to rapids (Moisio *et al.* 2012) or situated by the mouths of rivers (Sarkkinen 2003: 21). They are also frequently located in the vicinity of prehistoric settlement or hunting sites (Okkonen & Heikkilä 2011: 43). However, many of the stone weirs were destroyed during dredging operations to facilitate timber floating in river channels in the late 19th and early 20th centuries and also from the 1950s onwards, when the major Ostrobothnian rivers were harnessed for producing hydroelectric power (e.g., Huurre 1991).

Lath screen modules associated with wooden fishing structures represent a relatively common type of wetland archaeological resource in the eastern Baltic Sea region and western Russia. Laths made of pine wood and bindings of bast, wicker, and birch bark seem to be the most typical materials used for manufacturing stationary wooden fishing structures (e.g., Levenok 1969, Vankina 1970, Burov 1972; 2001, Loze 1979; 1988; 2001, Kraynov 1991, Rimantienė 1992; 1995, Lozovski 1999, Bērziņš 2008, Lozovski *et al.* 2013, Bērziņš *et al.* 2016). In the eastern Baltic Sea region, trap panels were frequently bound with lime bast, even though birch bark was available and utilized as entire sheets in other parts of the fishing structures (Lozovski 1999; see, however, Bērziņš *et al.* 2016: 27). At the Russian site of Zamostje 2 in the Upper Volga region, bulrush (*Scirpus*) was typically used rather than bast or birch bark for lath screen bindings (Lozovski *et al.* 2013).

At the lakeside settlement of Sārnate, western Latvia, at least six rolled-up lath screen modules were uncovered associated with Early and Late Sārnate Ware, dated roughly to ca. 4000–3000 cal BCE (Vankina 1970, Bērziņš 2008). Bundles of laths with the remains of bast bindings have been interpreted as lath screen fish traps used in a shallow lake (Bērziņš 2008: 241–250). Weirs and traps have also been found in the Lake Lubana valley, eastern Latvia (Loze 1979; 1988; 2001, Lozovski 1999), where the Early and Late Neolithic stationary wooden fishing structures at Zvidze and Abora were made from narrow pine laths and willow twigs with bast bindings. The fishing-related

artefacts of the Neolithic and Early Bronze Age coastal site of Šventoji, western Lithuania, also include a large number of fish traps and weirs made from pine laths (e.g., Rimantienè 1992; 1995, Piličiauskas *et al.* 2012).

The dates of the stationary fishing structures in Russia range from the Late Mesolithic to the Early Iron Age. Wooden fishing arrays consisting of stationary structures have been found at the sites of Vis and Marmugina, northern European Russia (Burov 2001), as well as in the Lugovskoi peat bog (Burov 1972), Sakhtysh (Krajnov 1991), Podzorovo (Levenok 1969), Plekhanov Bor, Ivanovskoe, Berendeevo, Karash, (Burov 2001), Serteya 2 (Mazurkevich *et al.* 2010, Kulkova *et al.* 2015), and Zamostje 2 (e.g., Lozovski 1999, Lozovski *et al.* 2013) in central and northwest Russia. Most of the structures have been found in association with occupation sites and fishing stations and consist of fish weirs mostly made from laths and stakes, which have been bound up with bast (Lozovski 1999). The extensive multiperiodic site of Okhta 1, with a wide range of preserved wooden fishing apparatus from the Neolithic, was discovered at the building site of the Gazprom business tower in the centre of St. Petersburg (Sorokin *et al.* 2009, Kulkova *et al.* 2012; 2016).

Comparable designs are known from around the world: for example, the fish weirs among the Ob-Ugrian Khanty and Mansi of western Siberia (Sirelius 1906c: 46–47), the Mesolithic and Neolithic hazel rod wattle-work and wicker screens of northern Europe (Fig. 5) (e.g., Christensen 1997, Christensen 2014, Myrhøj 1999: 167, McQuade & O'Donnell 2007: 574, 581, Klooß 2015: 332), and the wooden tidal weirs manufactured by the Tlingit, Haida, and Chinook ethnic groups of the Northwest Coast of North America (e.g., Stewart 1977, Moss *et al.* 1990, Moss & Erlandson 1998, Losey 2010).

2.3 FISHING STUDIES IN FINNISH ARCHAEOLOGY AND ETHNOGRAPHY

Direct evidence of fish consumption in prehistoric Finland is problematic because fish remains are relatively seldom recovered at archaeological sites. The poor preservation of organic materials in the Finnish acidic soils, the fragmentation and brittleness of burnt bones, and the excavation and recovery methods used all hinder the taphonomic and taxonomic study of prehistoric fish remains (Ukkonen 1996a; 2004, Mannermaa 2008, Nurminen 2007; 2015a, 2016, Vaneeckhout *et al.* 2013). In addition, there are rather few fishing-related artefacts in Finnish archaeological collections (Fig. 6) (e.g., Minkkinen 1999; 2000, Naskali 1993; 2004) thus suggesting that a great proportion of these implements were made of organic materials, such as bone, antler, and wood as well as plant and animal fibres.

Figure 5. Neolithic hazel stake and willow twig tidal weir at the construction site of the Femarn Belt fixed link in Lolland, southeast Denmark. Photo by the author.

Figure 6. Fish-shaped shank of a composite fishhook (KM 17076:49) from the Typical Comb Ware site of Holopainen in Leppävirta, eastern Finland. The artefact is ca. 9 x 12 cm in size. Photo by Esa Suominen, National Board of Antiquities (AKD32385:1).

Studies in which fishing was a central theme were published already decades ago by, e.g., Pälsi (1916; 1944) and Edgren (1967; 1970). In publications concerning site location, archaeofaunal assemblages, and subsistence strategies, fishing has been studied as one topic among many (e.g., Pälsi 1920; 1944, Äyräpää 1950, Edgren 1973, Carpelan 1999, Ukkonen 1996a; 2004, Mökkönen 2001; 2011, Kankaanpää 2002, Leskinen 2002, Nurminen 2004; 2007, Núñez 2009). Fishing methods as a main theme have only been explored in the most recent decades, for example in studies by Minkkinen (1999; 2000) and Naskali (1993; 2004). An important osteoarchaeological study of fish remains from Finnish Stone Age contexts by Nurminen (2004; 2006; 2007; 2015a; 2016 and in preparation) is currently under way.

Numerous ethnographic studies on fishing in historical times have been published in Finland. Fish have not only played a role in the subsistence base but also in the material culture (such as in clothing and utensils), folk art, and folklore. Information has been collected by means of questionnaires and fieldwork carried out in different parts of Finland, Karelia, and Russia (Fig. 7). Sirelius began the tradition by studying fishing methods among the Finno-Ugric peoples in the late 19th and early 20th centuries and completed an exhaustive, three-volume monograph on fishing (1906a; 1907; 1908) and an analytical study on stationary fishing structures utilized by Finno-Ugric peoples (1906bc).

Figure 7. A traditional Ob-Ugrian Khanty fish weir from the tributary of the Ob River in western Siberia. Photo by U.T. Sirelius 1898–1900, National Board of Antiquities.

Virtanen studied fishing rights and the social organization of fishermen in eastern Karelia (1950). Pioneering works on fishing folklore and traditions among the Finno-Ugric peoples have been written by Kannisto (1908) and Karjalainen (1914) on the Ob-Ugrian Khanty and Mansi of western Siberia, by Itkonen (1936; 1937a; 1944; 1948) on the Sámi, and by Harva (1914ab; 1942; 1948) on the Mari and other Finno-Ugric peoples. Vilkuna (1974) continued this work and published a monograph on salmon fishing on the Kemijoki River, in which he also discussed environmental factors, settlement history, and the division of labour.

Ethnographic studies indicate that northern peoples did not see fish merely as a nutritional resource. In addition to the flesh, all parts of fish were commonly used (e.g., Berg 1984). The bones, offal, roe, fins, and skins were used for various purposes. The skins and scales were traditionally processed for making glue. Burbot skins were used for making pouches and straps. Salmon skins have been described as being used for making sacks, pouches, and garments, including caps and shoes, among the Sámi and several groups of people in eastern Siberia (Leem 1767, Berg 1984). Burbot skins have even been used as windows (Castrén 1885). The Khanty of eastern Siberia, Eskimos, and people of northern Asia have typically sewn summer clothes of fish skin (Hämäläinen 1938).

2.4 PURKAJASUO AND THE KIERIKKI AREA

The Stone Age settlement complex of Kierikki by the mouth of the Iijoki River is unique in many respects. The riverbank settlements with dozens of housepit clusters, imported materials, and abundant resources have provided basis for several studies concerning the settlement pattern, social dynamics, environmental reconstructions, and other characteristics of archaeological sites in the area (e.g., Siiriäinen 1967, Halinen *et al.* 1998, Koivunen 1996; 2002; 2006, Viljanmaa 2009, Costopoulos 2002; 2005, Costopoulos & Vaneeckhout 2005, Costopoulos *et al.* 2006, Hulse & Costopoulos 2007, Núñez & Okkonen 1999; 2005; 2009, Núñez 1995; 2009, Karinen 2000, Tranberg 2006, Vaneeckhout 2008; 2009ab; 2010, Vaneeckhout *et al.* 2009, Ikäheimo *et al.* 2015; see also the critiques on Vaneeckhout by Mökkönen 2009; 2010 and Damm & Zvelebil 2010). The estuary of the Iijoki River is the site of one of the largest Stone Age housepit concentrations in northern Finland. The long multi-room houses of Kierikki have been suggested to indicate increased communality (Okkonen 2003, Núñez & Okkonen 2005, Vaneeckhout 2008; 2009ab; 2010) and to display the idea of a longhouse borrowed from the contemporaneous Neolithic cultures further to the south (Mökkönen 2011: 67). The Purkajasuo site and its extensive wood materials have been briefly mentioned in the WARP newsletter (Wetland Archaeological Research Project at the University of Bradford) by Núñez (1995) and a publication concerning archaeological fieldwork in Finland by Schulz (1998b).

Figure 8. Field conservation with Polyethylene Glycol (PEG) of a lath screen section at Purkajasuo by conservator Jari Heinonen in 1996. Photo by Hans-Peter Schulz.

The mass conservation process of the Purkajasuo wood material at the University of Oulu has been described and published by Heinonen (2005) (Fig. 8). A geological study (Karinen 2000), an insect fossil analysis (Tranberg 2006), and a dendrochronological dating experiment with the conserved wooden material (Kinnunen 2007; Zetterberg & Kinnunen 2007; 2009) have been published before the current study.

2.5 PROSPECTING WETLANDS FOR ARCHAEOLOGICAL PURPOSES

The same factors that preserve and protect organic archaeological remains in moist, anoxic wetland habitats also make them very hard to locate and study. Very few attempts have been made to detect and prospect wetland archaeological sites in Finland. Metal detector (Wessman 2009) and georadar (GPR) (Forsberg *et al.* 2009, Miettinen 2009) have occasionally been used experimentally in wetland environments, but only on a very small scale. At Lapp weir sites in northern Ostrobothnia, side scan sonar and GPR have been applied to prospecting for stone-built fishing structures at the bottom of a river channel (Moisio *et al.* 2012), but these methods were tested in underwater conditions.

Multibeam Echo Sounder (MBES) has also been used in underwater conditions at Vrouw Maria shipwreck and in visualizing the underwater topography in front of the maritime fortress of Suomenlinna in Helsinki (Tevali 2016). Wetland sites have occasionally been sought using 'traditional' dryland fieldwork methods such as fieldwalking, test pitting, and coring. By the turn of the 2000s, wetlands were taken into consideration in a fieldwork project by the Riihimäki museum (Matiskainen & Zhilin 2003, Matiskainen & Ruohonen 2004). Coring and test pitting were applied in the vicinity of mires, in river valleys, and in areas where the topographical features suggested overgrown lakes. A few positive findings were made, but the numerous challenges complicating the detection of new sites in demanding wetland landscapes were well attested to in the project.

At the European level, geophysical prospection in complex landscapes, such as in peatlands and alluvial habitats, has been more active. Most of the scanning has concentrated on previously known sites and structures or has utilized subsurface terrain modelling (e.g., Clarke *et al.* 1999, Utsi 2004, Schleifer *et al.* 2002, Weller & Bauerochse 2013). Geological coring, geomorphological mapping, and geophysical techniques, such as fluxgate gradiometry, have been successfully applied in modelling the buried topography and for assessing archaeological preservation potential (Bates & Bates 2000, Weston 2001, Howard *et al.* 2008, Chapman *et al.* 2009). Digital terrain modelling (DTM) with LiDAR, geological sampling, and geophysical survey (with GPR and

Electric Resistivity ER) have been applied in prospections of dynamic estuary landscapes and complemented by trial excavations, palaeoenvironmental evaluation with pollen and plant macrofossils, and hydrological studies (Passmore *et al.* 2002). For example, the intensity of the LiDAR pulse has been applied together with geological and soil chemical studies for evaluating the preservation potential of archaeological resources preserved in wetland landscapes (Challis *et al.* 2011: 301–311). Large-scale wetland evaluations and palaeolake studies have been conducted with the help of GPR and magnetometry (e.g., Gething *et al.* 2013, Bergman *et al.* 2003). Mesolithic lakeside settlements have been investigated with the help of the topographic modelling of terrestrialized lakes and by allocating fieldwork to lakeshore areas with high wetland archaeological potential (Bergman *et al.* 2003, Lagerås 2003). A more radical approach has been introduced in the form of cooperation between archaeologists and peat extraction companies with the aim of creating opportunities for archaeological fieldwalking between peat extraction periods (Larsson & Sjöström 2010; 2011; 2013, Sjöström & Tayanin 2013) (Fig. 9).

Figure 9. Fieldwalking at the extensive peat extraction site of Rönneholm, southern Sweden. The area is known for its dozens of late Palaeolithic and Mesolithic camp sites by the shores of an overgrown lake, which is today covered by several metres of peat. Photo by the author.

Most of the geophysical testing in peatland areas has targeted the detection of heavy-weight, horizontal timber structures and subsurface terrain modelling (e.g., Clarke *et al.* 1999: 107–121, Utsi 2004: 65–75, Schleifer *et al.* 2002: 243–253, Weller & Bauerochse 2013: 421–422). The practical large-scale application of these methods has yet to be solved and the limits of detection

depth constrain their use in many areas. Occasionally, GPR has successfully been used to detect waterlogged wood under saturated peat layers, even though the visibility of the archaeological remains has often been so poor that special effort is required to visualize the data (Armstrong 2010, Utsi 2004: 65–75, Clarke *et al.* 1999: 107–121). Several GPR surveys have also failed to detect archaeological remains that are known to be present at the site (Gething *et al.* 2013, Armstrong 2010, Schleifer *et al.* 2002). In conclusion to this brief review of prospection methods for wetland archaeological purposes, it may be noted that often only a single technique has been used to survey a site.

3 THEORETICAL FRAMEWORK

The Finnish archaeological tradition has sometimes been described as atheoretical (e.g., Halinen *et al.* 2008). Field archaeologists in particular have thought of themselves as empiricists, relying mainly on the concrete things that they can see and touch. Quite often, however, theories and assumptions are more or less hidden within the praxis and only need to be detected and identified. Attempting to explain the phenomena of the past with 'common sense' is not enough, and many of our thoughts and reflections about the things we study and try to perceive are concerned with theoretical questions. Most of the theoretical framework in this dissertation has to do with making assumptions and interpretations based on archaeological data associated with wetlands and with finding ways to test and strengthen the hypothesis. The use of practical methods in archaeological fieldwork carried out by myself in wetland habitats has been essential in furthering my understanding, at least to a certain degree, of the complexity of wetland settings and the variety (as well as the quantity) of the archaeological materials deposited in these habitats. Practical methods in the field result from theoretical approaches to understanding the archaeological record and the soil composition surrounding it.

3.1 PERCEPTIONS OF WETLANDS IN ARCHAEOLOGY

The scientific value of wetland archaeological sites is often one-dimensionally based on their significance as a depository of organic materials, but the meaning of the wetland setting itself – as perceived already by the people who used and occupied these sites in the past – has not been considered often (see, however, Van de Noort & O'Sullivan 2006). Wetlands have typically been integrated (more or less forcibly) into theories of landscape where they are perceived as marginal, central, liminal, or otherwise important areas (Menotti 2012). On many occasions, wetlands have been seen as mystical and even feared landscapes. Their ritual significance has also welled from the suggested sacrificial nature of bog bodies, scattered human remains, and artefacts deposited in peat bogs and other watery habitats, which have been interpreted as votive depositions and manifestations of unknown ritual practices (e.g., Glob 1966, Görman 1996, Sanders 2009, Wessman 2009, Bliujienė 2010; see also Menotti 2012). How wetlands have been conceptualized has varied significantly through time, space, and the branch of discipline. Many of today's scholars prefer a 'specialized' approach, perceiving wetlands as separate components in the landscape even though they merely constitute a single sector in the whole of the cultural landscape (e.g., Gearey 2002, Gearey & Chapman 2004). The specialized view wells from postmodern thinking, where

the landscape is seen and perceived from our own perspective and the numerous forms of wetlands, such as bogs and alluvial landscapes, do not typically bear any special societal values but are more often seen and perceived as 'wasteland' or procurement areas for certain resources, such as peat and fodder.

The utilization and importance of wetlands may also have changed over time. First, certain wetland areas could have been used as important procurement areas that provided valuable and essential resources for basic necessities, such as nutrition and materials for making utensils. Later, they may have been perceived as obstacles hindering the passage of people to the surrounding areas. From the ecological viewpoint, wetlands constitute alluring and resource-rich habitats that have been settled intensively and continuously through time regardless of the harshness and impracticality of the humid circumstances hampering everyday living conditions and passage. Preventative measures against transgressions, flooding, and water saturation have been recorded at numerous wetland sites almost all over the world, for example at the lake villages of the Circum-Alpine region (Menotti 2001; 2003, Menotti *et al.* 2014) and the lake villages of Britain (Coles & Minnitt 1995, Coles & Coles 1996).

In Finland, however, the situation is somewhat different. The prehistoric populations' perceptions of wetlands may have changed significantly over time, mostly due to the dynamic landscape and climate. Compared to many other areas, environmental and climatic changes have profoundly altered the landscape, as well as the setting of the archaeological sites, throughout the Holocene. Strong isostatic rebound, eustatic changes in the water level of the Baltic Sea, local topography, and climate fluctuation have had a dramatic effect on the formation of many land forms, including wetlands. Therefore, a clear distinction between a *wet site* (a site generated in a wet habitat, such as fisheries) and a *wetland site* (a site generated on a dryland setting that has later turned to wetland, such as settlements at lakeshores, river estuaries, and coastal flats) (see Nicholas 2001: 263–266) is not as clear-cut in Finland as in many other areas. This is mostly due to the above-mentioned environmental and climatic factors, which have often progressively altered the habitat where the archaeological sites are to be found today. This is especially relevant in connection with shore-bound hunter-fisher-gatherer sites because environmental factors have driven the aquatically oriented forager populations to move their spheres of operation constantly towards the retreating shoreline for practicing their hunting, fishing, and gathering activities and for using waterways for transportation.

A clear distinction between a wetland site and a wet site has to be taken into consideration when the interactions between people and their ecological settings are explored in the past, which, of course, is also crucial when

archaeological interpretations are linked to palaeoenvironmental and climatic reconstructions. This is also topical in terminological thinking because, in the Finnish language, wetland archaeology is traditionally referred to as peat bog archaeology (Fi. *suoarkeologia*), a term literally restricting wetland archaeological research exclusively to mires and peatlands and disregarding a whole variety of other wet habitats. It would thus be highly appropriate to employ the Finnish equivalent of wetland archaeology (Fi. *kosteikkoarkeologia*) when referring to archaeological research concentrated on wetland habitats in Finland. As defined by the Ramsar Convention on Wetlands (1971), wetlands are "areas of marsh fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres" (Matthews 1993: 38). Archaeological resources located below this six-metre limit may be assumed to fall into the realm of underwater archaeology. But, as was stated above, a clear distinction between these two archaeological subdisciplines is often hard to draw.

The compartmentalization of archaeological sites, not only those situated in wetland habitats, but also those located in other ecological settings, is very much dependent on the subjective thoughts of the interpreter – the archaeologist – based on the interpreter's recognition, perceptions, paradigms, and the spirit of the times. Careful consideration and source criticism are thus needed in making assumptions concerning the functional and contextual circumstances of a site based on its present setting and the fragmentary and biased archaeological record it contains. The composition and characteristics affecting the categorization of certain wetland archaeological site types are not static. This has been demonstrated through the reanalysis of sites and their settings, for example, at the previously mentioned lake dwellings, crannogs, and trackways in Britain (Fletcher & Van de Noort 2007). Surprisingly, it became apparent that most of the sites represent a wide variety of remains associated with different prehistoric activities, the characteristics of which had later been distorted by natural processes, such as the infilling of old lakes and other factors enhancing paludification.

The distinction between a *stray find spot* and an *archaeological site* has already been briefly touched upon in Chapter 1, but it deserves further discussion in the theory section. The majority of the find spots of earlier wetland archaeological stray finds have not been studied adequately, even though several of the older 'bog finds' have later returned prehistoric dates (e.g., Matiskainen 1996, Kuokkanen 2000, Taavitsainen *et al.* 2007). It is possible, though, that some of the stray find spots may contain archaeological layers, features, and structures that were simply not revealed and observed during their sudden recovery. The existence and deposition of a stray find itself

indicates that the find spot and its surroundings are promising in terms of finding other traces of human activity, such as signs of human habitation and resource procurement. Therefore, the evaluation and prospection of a stray find spot and its environs is the only possible way to reveal the whole contextual setting of the archaeological assemblage and to further archaeological interpretation.

Human activities may also have induced changes in the wetland ecosystem. Wetland hydrology is susceptible to even small-scale alterations, such as the blocking or opening of certain areas with artificial structures for particular purposes, for example, with wooden palisades, causeways, brushwood barriers, platforms, and earthenwork features (such as ditches or embankments). Today, it is difficult to find wetlands in their pristine state. The *anthropocene*, the human impact on the environment, is relevant in connection with vulnerable habitats like wetlands, where even small-scale artificial alterations in the landscape may rapidly unbalance the whole ecosystem. More drastic actions, such as wetland manipulation and deforestation, including anthropogenic and climate-driven environmental change, have even been suggested as reasons for the widespread collapse of ancient civilizations like the Classic Maya polities of Mesoamerica (Kennett & Beach 2013). Drainage, afforestation, agricultural reclamation, and peat extraction are the most immediate threats to the preservation of wetland archaeological resources (Fig. 10). The areas in Finland with the highest potential for encountering wetland archaeological resources are those that have been most heavily disturbed by the above-mentioned activities.

Figure 10. A drainage ditch at the peat extraction site in south-east Finland. Photo by the author.

Even though land use processes destroy and disturb the archaeological remains directly, some indirect impact may also occur, for instance in the form of acidification (a decrease in the soil pH level) caused by intensified agriculture and chemical and physical factors increasing the deterioration of the burial environment (see Milner *et al.* 2011). It has even been suggested that the rapid, systematic, and exhaustive destruction of waterlogged archaeological remains by the above-mentioned artificial activities may be regarded as a significant crisis for the entirety of the archaeological cultural heritage (Brunning 2007).

Today, no one denies the huge scientific value of wetland archaeological resources, which has been soundly demonstrated in several studies (e.g., Keller 1866, Clark 1954, Coles & Lawson 1987, Coles & Coles 1991; 1996), but the management of the archaeological resources preserved in wetland landscapes is problematic, mostly because of the lack of appropriate mapping and prospection techniques. It is impossible to manage or sustain a resource that is unknown and that has not been properly understood, monitored, or documented, at least at a minimal level. Archaeological fieldwork under the influence of today's developer-led archaeology is concentrated mostly on drylands, where land use and construction operations are concentrated. In research-based investigations, bogs and wetlands have also long been considered marginal areas for human habitation and resource procurement, even though their utilization has been extensive and diverse from prehistory to the modern era (e.g., Nicholas 2013: 769–770). This has obviously resulted in a severe limitation when utilizing the fragmentary and incomplete archaeological record because our conceptions of the technological adaptations and material culture have mainly been based on durable materials, such as lithics, ceramics, and metals. Thus, the consideration of wetland areas in archaeology with their potential for organic preservation contributes to broadening our conceptions of past lifeways, material culture, and resource utilization and allows us more possibilities to proceed from site-specific evaluation to more landscape-oriented approaches.

The Ecosystems Services (ES) framework formulated in the Millennium Ecosystem Assessment by the World Health Organization (WHO) in 2005 has been suggested as providing some opportunities for protecting, valuing, managing, and resourcing the wetland archaeological cultural heritage (Gearey *et al.* 2014). Wetland archaeology has been touched upon in discussions concerning biological sustainability and climate change, mostly because peatlands sequester carbon and mitigate climate change, but conversely the degradation of organic remains at waterlogged archaeological sites produces greenhouse gases and may hence even further global warming (Durham *et al.* 2012). The rewetting and restoration of degraded peatlands may both improve and impair the preservation potential of archaeological remains. Rewetting raises the water table, which thus improves the

preservation conditions of the organic remains. At the same time, a sudden elevation of the water table may alter the burial environment abruptly and introduce new bacteria and fungi, thus causing the fragile archaeological remains to deteriorate further (see English Heritage 2010). Efficient wetland restoration may also hamper the identification and assessment of wetland archaeological sites by masking the remains and making them invisible to archaeological mapping and surveying techniques. Drainage ditches filled with water and areas covered in dense vegetation obstruct access and visibility at restored wetlands.

3.2 ANALOGICAL REASONING AND PREHISTORIC FISHING

The second theoretical theme in this study concerns the application of indirect evidence and analogues in the study of prehistoric fishing and subsistence with the help of stationary wooden structures. The archaeological signal confirming the significance of fishing in prehistoric Finland rests on unstable ground. The importance of the utilization of fish already among the early hunter-gatherer populations inhabiting Finland has been perceived as a self-evident fact in a country known for its thousands of lakes, major rivers, and long coastline. Direct evidence for fish utilization in prehistory is, however, problematic, because fish remains are relatively seldom recovered in archaeological contexts. The poor preservation of organic materials in the acidic soils, the fragmentation and brittleness of burnt bones, and the excavation and recovery methods used all hinder the taphonomic and taxonomic study of prehistoric fish remains (Ukkonen 1996a; 2004, Mannermaa 2008: 40, Nurminen 2007; 2015a; 2016 and in preparation). In archaeological reasoning, taking fishing for granted is just not sufficient. To be able to conceptualize and explore the fishing theme by utilizing stationary wooden fishing structures in this study, a theoretical framework has to be constructed in order to be able to utilize both direct and indirect evidence referring to the utilization of fish by the prehistoric communities.

In archaeological reasoning, the artefacts and materials recovered at sites are ‘silent’ in a sense because currently they belong to the present, and the time they represent is long past. Our views on why, when, and by whom the artefactual pieces of evidence were manufactured and used is our own perception of the present based on certain archaeological facts and previously made assumptions. All theories in archaeology urge researchers to find out more about the distant past by utilizing archaeological materials but vary in their recommendations as to how this could best be done (see, e.g., Johnson 1999). The development of methods for modelling the relationships between human behaviour and the material culture record is essential in attempts to interpret archaeological data (e.g., Gould & Watson 1982: 356, Roux 2007,

Skibo 2009), and the application of ethnographic studies of living cultures to archaeological perspectives helps to understand the relationships between material culture and culture as a whole and to improve interpretation (David & Kramer 2001). Binford's middle-range research (1962; 2001) reflected the static record of the present onto the dynamics of past societies, such as the ways in which prehistoric cultural systems functioned, developed, and transformed. The uncertain area between these two concepts – the middle range – connecting arguments between present and past may be strengthened by way of using independent ethnographic and environmental data for exploring the relationships of patterning (Binford 1962: 218–219; 2001). The limitations of analogical reasoning have also been well acknowledged, such as the decisions to be made concerning which observations can most securely be linked to past events (Binford 2001: 46). In the study of phenomena of long duration, as in archaeology, time and the use of ethnoarchaeological analogy may be seen as problematic. Information on the continuity of cultures from prehistoric to historic populations is obscured in many areas and the historic descendants of the subject culture are difficult to identify and trace (Steward 1942: 339–340, Lyman & O'Brien 2001). By means of ethnoarchaeological approaches, however, the impacts of different mechanisms can lead to the development of models of past dynamics that can be tested against the archaeological record (David & Kramer 2001: 47, 53). Ethnoarchaeology offers useful tools for understanding the complexity in archaeology (Roux 2007: 155) because the dynamics and manifestations of different archaeologically investigated phenomena are not necessarily what they first seem to represent. The more links we are able to see between the present and the past, the stronger our interpretations concerning past lifeways may be.

A distinction between formal and relational analogies is relevant in archaeological reasoning (e.g., Johnson 1999), especially in the study of the functional characteristics of archaeological materials, in this case, the stationary fishing structures. Formal analogies rest simply on observations such as presuming that if some elements of the object of study are similar, there may be other similarities as well (see Fig. 11). The more points of similarity can be discerned, the stronger the analogy will be. Relational analogies rest on a firmer basis if cultural or environmental factors between the two objects of comparison are similar. Cultural continuity strengthens the weight of the analogy as evidence (e.g., Steward 1942: 339–340) but in most cases is extremely difficult to prove, as was stated earlier. The cultural component accompanying fishing may not have been very easily modified or replaced with accustomed cultural practices, taking into account the characteristics of the natural resource being utilized.

Figure 11. A Mansi fish weir in a small stream in Janytshkova, Siberia, in 1903 bears many similarities to mid-Holocene lath screen structures found at, for example, Purkajasuo in Yli-Ii. Photo by Artturi Kannisto, National Board of Antiquities (SUK35:130).

It would thus not have been rational or cost-effective to apply inferior tools only for certain cultural reasons. In taphonomic thinking, however, the cultural component is essential because the various ways of processing fish and disposing of waste could have been regulated by certain cultural factors and prohibitions. These habits may have a significant role today in the preservation and recovery of the archaeological record, the taphonomy, especially the actual fish remains.

On the Northwest Coast of North America, a number of previous studies concerning fishing with stationary wooden structures have been criticized as being too restricted exclusively to the functionalist perspectives of the fishing gear (see Losey 2010). Understanding the role of archaeological assemblages among the people who actually manufactured and used them – the *perception of fishing structures by the prehistoric populations* – has been considered by applying animistic concepts in the research. It has even been suggested that the fragmentary nature of the wooden weirs in the Northwest Coast area may refer to the importance of dismantling the weirs after use for the purposes of not antagonizing the fish between the procurement seasons. Native ontological concepts have also been explored by archaeologists in order to be

able to diversify the use of fishing structures in archaeological thinking (Losey 2010: 18).

In order to be able to link the static archaeological record of the present to the dynamics of the past, my middle-range assumption (that is, working hypothesis) is that the quality and quantity of the fishing-related materials at the case study site of Purkajasuo suggests the intensification of fishing by the mid-Holocene estuary of the Iijoki River. To avoid the implicit nature of this assumption, the hypothesis is explored and tested in the light of ethnographic (analogous) data and environmental and climatic factors in order to make uniformitarian assumptions about certain cultural similarity (see Johnson 1999). Therefore, comparable activities in the present, namely fishing methods described in the ethnographic record in similar environmental circumstances, form the basis for exploring the stationary wooden fishing structures in a detailed and accurate way in this study. The use of this middle-range framework is justifiable because a balanced subsistence strategy based on fishing is dependent on several ecological, physical, and biological factors that are governed by climatic and environmental circumstances, such as the abundance of certain species in a given habitat, procurement seasonality, preservation technology, and storage adaptations (even though we cannot know whether spoiled fish was considered a delicacy among the (Sub-) Neolithic foragers). In systems thinking (e.g., Binford & Binford 1968, Johnson 1999), environmental change, such as the climatic deterioration by the end of the Holocene Thermal Maximum (HTM), may have affected the current subsistence subsystem, in this case fishing, which may be mirrored in the archaeological record. The correlation and dynamics between various subsystems also have to be considered. Does the suggested intensification in fishing actually reflect population growth or a need for procuring a surplus of food, or were the Iijoki River populations simply especially keen on fish dishes?

4 MATERIALS AND METHODS

4.1 WETLAND ARCHAEOLOGICAL RESOURCES IN FINLAND

Nearly all Finnish wetland sites published up to the end of the 1990s have been covered in a review article and list of references published by Taavitsainen in 2001. Because of this, the current study focuses on updating and contextualizing the wetland data and pulling together previously unpublished materials. Information was gathered from the archive of the National Board of Antiquities (NBA 2016) concerning archaeological and ethnological collections, as well as from field reports and published literature. All this data was then evaluated and merged into a single database (Appendix I). Ethnographic materials were considered relevant in this context because over the decades a number of bog finds have ended up in ethnological museum collections. At that time, it was frequently presumed that the well-preserved organic assemblages found in bogs and other wetlands could not possibly be prehistoric due to their exceptional state of preservation, even though some of them might have been found in prehistoric contexts. For example, a large wooden scoop, found accidentally by a local farmer in a drainage ditch at the prehistoric lakeside settlement of Järvensuo in Humppila, south-west Häme, was used in a henhouse for feeding chicks for several years until the artefact had completely deteriorated (NBA 2016).

In order to move beyond the available (but relatively limited) archive materials and literature, a questionnaire was drawn up in 2010 and circulated among Finnish field archaeologists, asking them about any unpublished sites and materials found or observed in wetland settings. The inquiry was sent as an e-mail message via the archaeologist list (Fi. *Arkeologilista*), a mailing list functioning as a discussion forum for archaeology professionals and the general public interested in archaeology. The question asked was:

> *Have you ever conducted wetland excavations and/or worked with archaeological sites or materials that may fall into the branch of wetland archaeology in Finland?*

Fortunately, dozens of replies were received concerning small-scale wetland excavations conducted alongside 'normal' dryland fieldwork. It was interesting to see that many of the results had not been published or even mentioned in excavation reports before, as they were considered insufficient or inexplicable by the archaeologists themselves. There was thus a certain amount of 'hidden' information with wetland archaeological relevance that had not been registered, recorded, or published before. The observations were then

evaluated based on certain features, such as location, environmental setting, and characteristics, and then classified, quantified, and merged into a single database.

Only a minority of Finnish wetland archaeological resources have been securely dated. The radiocarbon datings have been carried out mainly at the Dating Laboratory of the Finnish Museum of Natural History (University of Helsinki) and its predecessors. In addition, a group of wetland datings has also been carried out at the former dating laboratory of the Geological Survey of Finland. Most of the dates have been published in archaeological and geological literature, as well as in the 'Radiocarbon dates' series published by the Dating Laboratory of the University of Helsinki. Quite a few of the results, however, have been mentioned only in field reports. A database of Finnish radiocarbon datings collected by the Argeopop project (Pesonen & Sundell 2011) was kindly provided for the purposes of this dissertation by Lic. Fil. Petro Pesonen. The radiocarbon database compiled by the Argeopop project actually led to the discovery of some previously unpublished sites and materials, and, therefore, was found to be very useful. Some of the most recent wetland archaeological fieldwork has also yielded dendrochronological dates (NBA 2016).

All dates were calibrated using the OxCal online v4.2.4 radiocarbon calibration program (Bronk-Ramsey 2009) that employs the Intcal13 calibration curve published by Reimer et al. (2013).

4.2 STATIONARY WOODEN FISHING STRUCTURES AND OTHER FISHING-RELATED MATERIALS

4.2.1 THE PURKAJASUO MATERIALS

The extensive Stone Age wood material found at the Purkajasuo Mire in Yli-Ii, northern Ostrobothnia, constitutes the basis for two of the articles (Papers II and III). A five-year fieldwork project carried out jointly by the National Board of Antiquities and the University of Oulu was in progress in 1996–2000 (Schulz 1997; 1998ab; 2000; 2001). Further excavations were carried out by the University of Oulu in 2004 (Koivunen & Viljanmaa 2004). The Stone Age fishery of Purkajasuo with its extensive wood material has not been studied and published to its full extent before. Three studies have been completed on the palaeolandscape, archaeofaunal remains, and deposition of the site: an MA thesis on the geological setting of the site by Karinen (2000), an insect fossil analysis by Tranberg (2006), and an MA thesis on dendrochronology by Heikkinen (née Kinnunen) (Zetterberg & Kinnunen 2007; 2009). There are also archaeofaunal analyses from the nearby settlement sites by Ohtonen

(1995) and Ukkonen (1996b–d; 2002a–e). The conservation process of the wood material has been described and published by Heinonen (2005).

Figure 12. The conserved Purkajasuo wood materials in the collection of the Kierikki Stone Age Centre in Yli-Ii in 2010. Photo by the author.

The recorded features of the wood finds (n=2602) were first collected from the excavation reports (Schulz 1997; 1998a; 2000; 2001, Koivunen & Viljanmaa 2004) and then merged into a single database (Appendix II). Because of the lack of certain properties in the excavation reports and wood find catalogues, the criteria for artefact types were re-defined during the research process of the second article (Paper II). The task was quite challenging, as recording principles had varied to a certain extent over the course of the excavations conducted by several actors. In addition, some wooden artefacts had been observed in drainage ditches, test pits, and corings during the fieldwork, but due to their poor state of preservation and/or insufficient observation conditions, these finds were only briefly mentioned in the excavation reports.

All conserved wooden artefacts (n=280) in the collections of the Kierikki Stone Age Centre in Yli-Ii and at the University of Oulu were reanalysed in the autumn of 2010 (Figs. 12, 13, and 14). The measurements, description, and preservation stage of each wood find were recorded, and these features were compared with the field data.

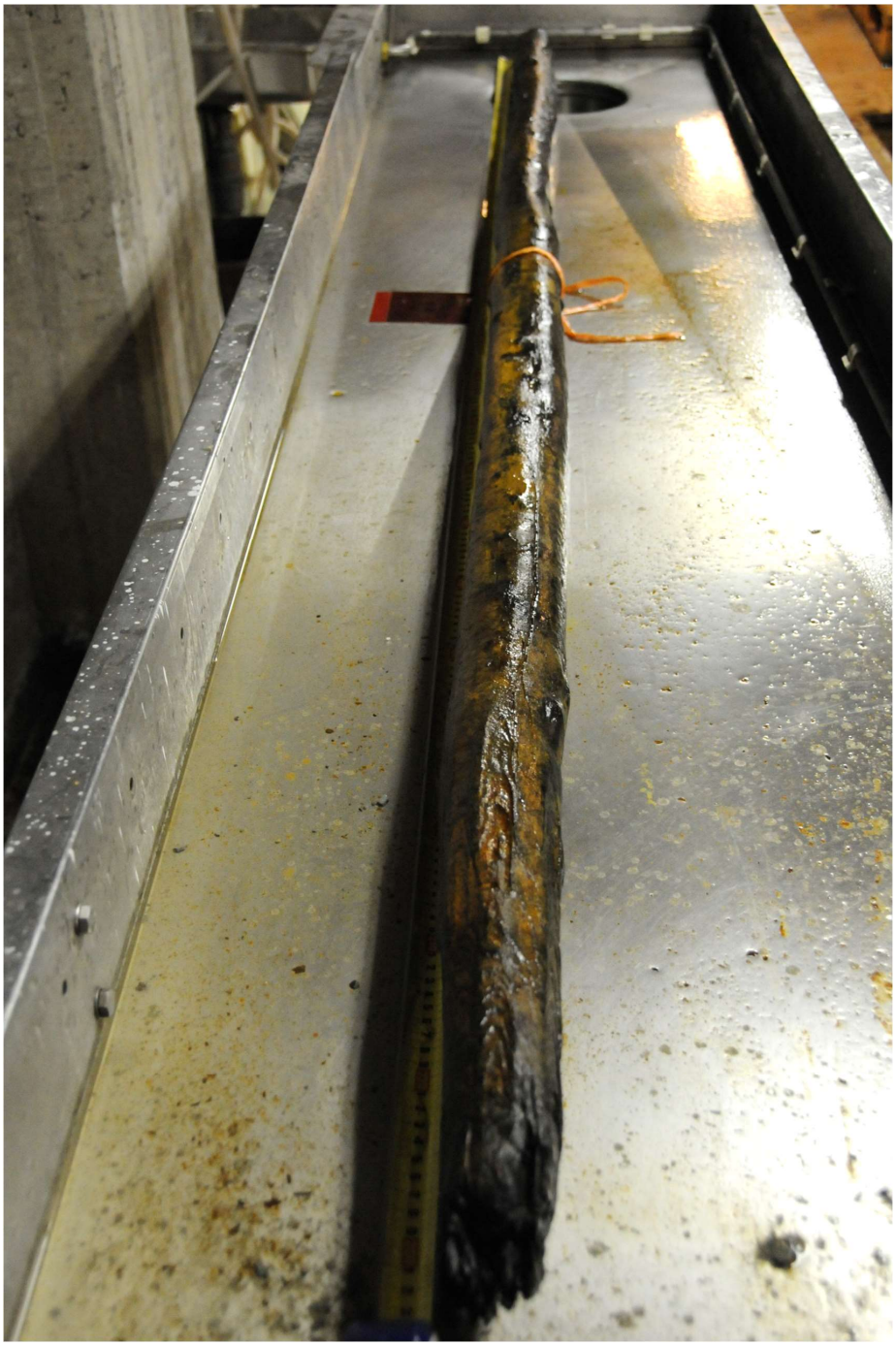

Figure 13. A nearly 2.5-metre-long trimmed pile (KM 34869:10) from Purkajasuo still under conservation at the University of Oulu in 2010. Photo by the author.

A rough visual assessment of the wood species in question (deciduous/coniferous wood) had already been conducted in the field. In the most obvious cases, this information was updated during reanalysis. The artefacts were then photographed and in some cases drawn to scale. A proper statistical analysis of the measurements of the different find categories was hindered by the lack of certain metadata in some of the previous reports. It was also observed very soon that conservation with Polyethylene Glycol (PEG) had caused the distortion and degradation of artefacts, and many of the previously measured examples had shrunk and changed their form through the years of conservation. The analysis was incomplete because only ca. 70% of the conserved wood finds had been properly documented.

The work continued with the examination of the dimensions, technological function, and typology of the wooden finds, which were then compared with the ethnographic and historic sources (see description below) in order to reconstruct the stationary structures and the Stone Age fishing techniques in the Iijoki River area in more detail. Furthermore, the results of the previous geological, entomological, dendrochronological, and radiometric studies were compiled and studied, and, finally, the results were compared and evaluated in the light of environmental data and archaeological sites with similar assemblages in Finland, northern Europe, and Russia.

Figure 14. A conserved lath screen section (KM 34860:19) from Purkajasuo. Photo by the author.

4.2.2 ADDITIONAL FISHING-RELATED SOURCES

During the compilation of the Finnish wetland archaeological site record for the first article (Paper I), several sites with stationary wooden fishing structures were revealed in the archive materials and through the questionnaire. When the first paper was published in 2011, several new reports were received from non-professionals and archaeologists about previously unregistered information on similar structures. Approximately 50 sites associated with wooden structures were included in a dataset of fishery sites, which was published in the third article in 2015 (Paper III). Since then, the total number of sites has grown even larger, mostly thanks to personal communications and the results of an extensive survey project conducted by the Finnish Forest Administration (Taivainen 2016). These sites have been progressively included in the NBA's register of archaeological sites (NBA 2016). This supplementary data was included in the fourth article (Paper IV), where the Finnish fishery sites were evaluated based on their context, distribution, recovery circumstances, and ethnographic sources on similar structures (see Appendix III).

The fishing-related artefacts compiled and published by Minkkinen (1999; 2000) have also been utilized in the current study. To update this data collected in the late 1990s, information accumulated after this was collected from the artefact catalogue and field reports archived by the NBA. In the articles on prehistoric fishing methods, this information was used as background material and not discussed at greater depth in order to keep this thesis from drifting too far from the main theme, namely wetland archaeological sites and stationary wooden fishing structures.

The fish bone material recovered at the occupation sites in the vicinity of the Purkajasuo fishery was considered relevant for the purposes of this study. This material was used to provide direct (though fragmentary and biased) evidence on the utilization of fish by the mid-Holocene Iijoki River populations. The fish remains from the Purkajasuo/Korvala (KM 31020, KM 31021, and KM 31835) and Kuuselankangas (KM 28943, KM 29907, KM 30665, and KM 28370) sites were reanalysed by MA Katariina Nurminen (2015b–d) during the research process of the joint article (Paper III). This was done because in some of the previous osteological analyses, fish vertebrae had not been identified to the family or species level. In addition, new fish vertebrae analyses conducted by Nurminen (2010a–f; 2011; 2012a–k; 2015e) for the purposes of her osteoarchaeological PhD thesis covering all of Finland were used in the article in order to explore the incidental occurrence of salmonid remains, namely salmon (*Salmo salar*) and whitefish (*Coregonus lavaretus*), in prehistoric contexts in Finland.

The ethnographic materials available in the NBA archive were studied in detail and utilized for exploring the variety of designs, manufacturing methods, and

characteristics of the fishing structures used in historical times in Finland. An ethnological questionnaire on lath screen fish traps circulated by the NBA in 1961 contained information on the manufacture, terminology, and use of this specific type of fishing apparatus in the late 19th and early 20th centuries. Replies to the questionnaire were received from ca. 320 localities in Finland and the former Finnish Karelian parts of Russia (see Fig. 15). In the current study, all the responses were studied in detail and relevant information was used as reference material (Fig. 16) for exploring the function, areal distribution, and characteristics of the archaeological stationary wooden fishing structures.

Figure 15. Distribution of all localities (n=320) where the respondents of the lath screen fish trap questionnaire had seen or used similar structures. Background data by Google Earth and National Board of Antiquities (1961). Map by the author.

No advanced GIS analysis was applied in the study of the areal distribution of the ethnographic and archaeological fishing structures. This is because the areal distribution of the replies to the ethnographic questionnaire may be assumed to be somewhat biased and not necessarily reflecting the 'real' occurrence of this fishing gear in historical times. The dense distribution of

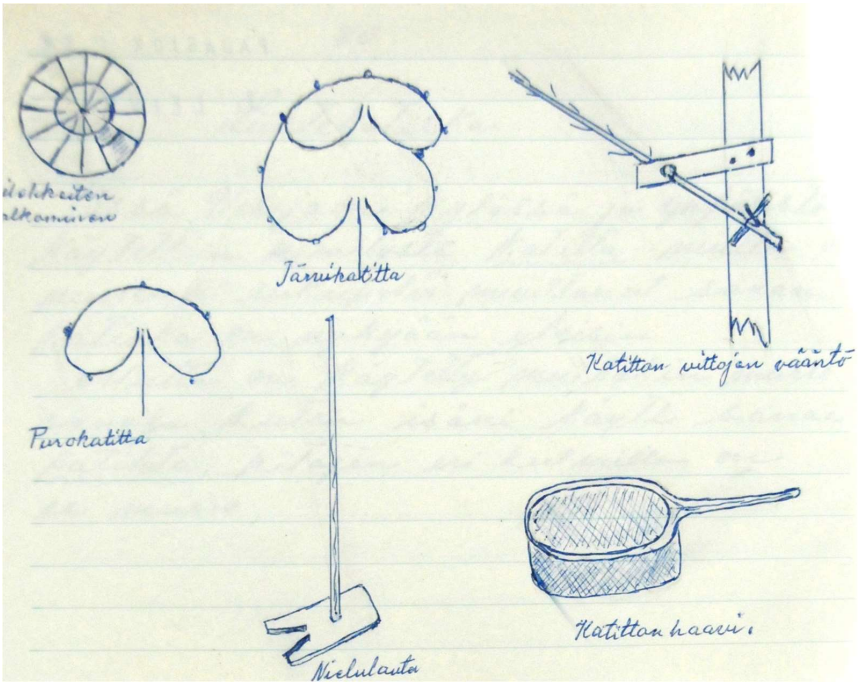

Figure 16. Example of a reply letter received for the fish trap questionnaire. The respondent illustrates different designs of trapping mechanisms and fishing-related implements. Data provided by the NBA, photo by the author.

fishery sites in the traditional agricultural area in southern Finland and the sparse distribution in the north (see Fig. 15) may reflect 'the spirit of the times' in the 1960s. The number of fishery sites in more densely populated and urbanized southern Finland may indicate that the fishing structures were already at the time perceived as cultural heritage, as opposed to northern Finland and Lapland, where many types of weirs and fish traps were still in use in everyday life and were not yet regarded as historically significant. More reflection on this topic may be found in Chapter 5. The archaeological materials from Purkajasuo associated with wooden structures were then compared with information from ethnographic sources on stationary fishing structures that relied on similar principles. This allowed projecting the technology back to the mid-Holocene period and evaluating its significance. The results were then evaluated in the light of environmental and climatic data, burnt fish remains, and archaeologically comparable assemblages from the Baltic Sea region and north-western Russia. In addition, a review of the ethnoarchaeological, ethnohistorical, and anthropological literature from the anthropological tradition (in the U.S. and Canada) was considered relevant in order to provide a somewhat broader perspective on the fishing theme in general and to expand my knowledge of the characteristics of forager communities who rely on fishing and use stationary fishing structures.

4.3 GEOPHYSICAL AND GROUND TRUTHING DATA AT LAMMINOJA

In the case study conducted at Lamminoja in Haapajärvi, the main aim was to test the suitability of three geophysical techniques for prospecting stationary wooden fishing structures and their surroundings in a wetland setting. A ground-penetrating radar (GPR), a magnetometer, and a Slingram instrument for measuring electro-magnetic induction (EMI) were tested in a drained peatland habitat. Some of the observed geophysical anomalies were chosen for ground truthing with trial excavations, and the visible wooden remains in the Lamminoja brook were documented and AMS-dated. In addition, the palaeoenvironmental potential of the site was preliminarily evaluated using palynological and macrofossil analyses.

The experimental fieldwork project at Haapajärvi was conducted by MA Wesa Perttola, MA Niko Latvakoski, and myself in the summers of 2012 and 2013. MA Minna Rönkä and MA Lauri Mäntylä helped us in fieldwork in 2012. The study area was surrounded by very dense vegetation and the peatland area was partially afforested. Therefore, it was essential to clear the vegetation before the survey area could be tagged in the terrain. Because of the vegetation, the survey area was relatively small and consisted of one rectangular area measuring 32.5 by 6 metres on the eastern bank of the brook and another measuring 15 by 3.5 metres on the western bank. The study area is illustrated in Figure 17. The cross-line sampling spacing for all the geophysical techniques used was 50 cm.

A detailed description of the geophysical techniques and their performance at Lamminoja is presented in the fourth article (Paper IV). Some of the detected geophysical anomalies and reflections were evaluated through trial excavations in 2013 (Fig. 18). The test pits were 50 by 50 centimetres and 1 by 1 metres in size. The trench was sited over the linear anomalous feature (anomaly 3) by the wooden structures in the Lamminoja channel and was 2 by 1 metres in size. The trenches were manually excavated with shovels and trowels to varying depths (see details in the article). Five soil samples and three wood samples were collected for environmental archaeological analyses and later dating. The soil samples varied between 1.2 and 2.5 litres in volume and were divided into smaller units of 0.5–1 dl for pollen and 0.6–2.2 l for macrofossil analyses. The environmental archaeological investigations were carried out at the University of Helsinki by PhD Teija Alenius (2014) for pollen and MA Santeri Vanhanen (2014) for plant macrofossils. In addition, the wood finds exposed in the Lamminoja brook were mapped with a total station, drawn to scale, and photographed in digital and 3D format. This facilitated merging the photographs into panoramic views. A wood sample for AMS dating (Beta-331814) was cut from a narrow pine lath situated in the middle of the wooden structure exposed in the recently improved brook channel.

Another AMS dating sample (Beta-362538) was chosen from an organic-rich layer underneath anomaly 2, ca. 3 metres north-west of the wooden structures in the brook. The Lamminoja data was analysed and field reports were produced by the whole team in 2013 and 2014 (Koivisto *et al.* 2013; 2014).

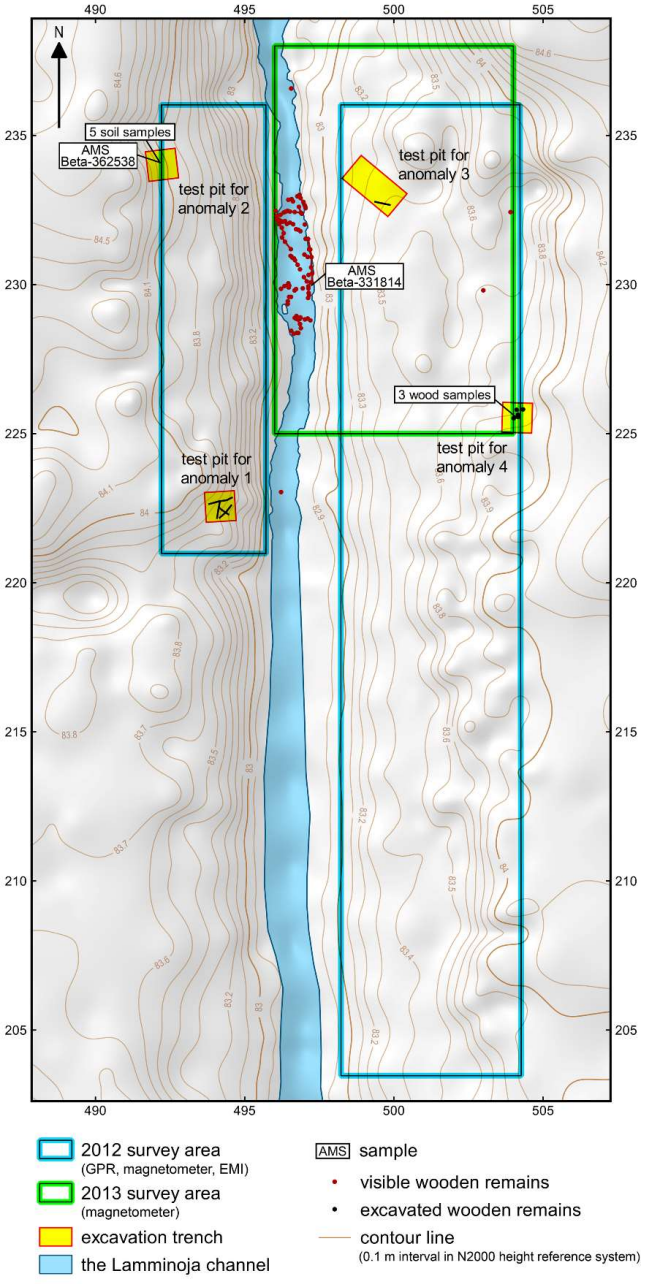

Figure 17. The study area at Lamminoja in Haapajärvi. Map by Niko Latvakoski.

Figure 18. Trial excavations in progress at Lamminoja in 2013. Test trenches were sited over anomalous features detected through geophysical methods. Wesa Perttola (left) and Niko Latvakoski mapping the remains of the wooden structures in test pit 4. Photo by the author.

5 RESULTS AND DISCUSSION

5.1 TOWARDS A DEEPER UNDERSTANDING OF FINNISH WETLAND ARCHAEOLOGICAL RESOURCES

5.1.1 WETLAND SITES IN TIME AND SPACE

During this study, several previously unpublished sites were revealed through the responses of the questionnaire circulated among Finnish field archaeologists in 2010. It became evident that in several cases, dryland excavations had been extended to a nearby mire or wetland in order to find out if the archaeological features continued outside the perimeters of the apparent core areas, such as in overgrown waterways or beyond the shoreline. Many of these small pieces of information had not previously been published or mentioned in field reports. The questionnaire thus enabled me to get hold of previously unknown data on Finnish wetland resources. After the first article was published in 2011, the total number of wetland archaeological sites has progressively grown during the process of collecting the data and conducting research on the specific topic. Many new sites (especially ones containing stationary wooden fishing structures) have emerged through communications with local residents. All information has now been updated and merged into a single database, which is presented in Appendix I. The distribution of wetland sites is illustrated in Figure 19 and their proportion by category is shown in Figure 20.

In total, 63 sites fall within the category of archaeological sites associated with wetlands in Finland. All these sites are included in the register of archaeological sites maintained by the NBA (2016), except for the net find from Antrea in Korpilahti, which is located on the Karelian Isthmus, formerly belonging to Finland but currently a part of Russia. However, there is a large group of unprotected sites (n=62), especially sites associated with stationary wooden fishing structures (see Chapter 5.2.3), that have not been included in this list of sites. This is because they do not have a protection status provided by the Finnish Antiquities Act, but are included in the NBA's site register as potential sites (n=25), cultural heritage sites (n=8), or removed sites (n=2) destroyed by land use or by natural processes. In addition, there is a group of personal communications (n=10), made by laymen and archaeologists, that have not yet been added to the register. A total of 15 stationary wooden fishing structures, mostly lath screen traps or remains of such structures, have been included in the catalogue of ethnological finds and two in the catalogue of archaeological finds maintained by the NBA. The total number of wetland archaeological sites in Finland may well exceed one hundred sites.

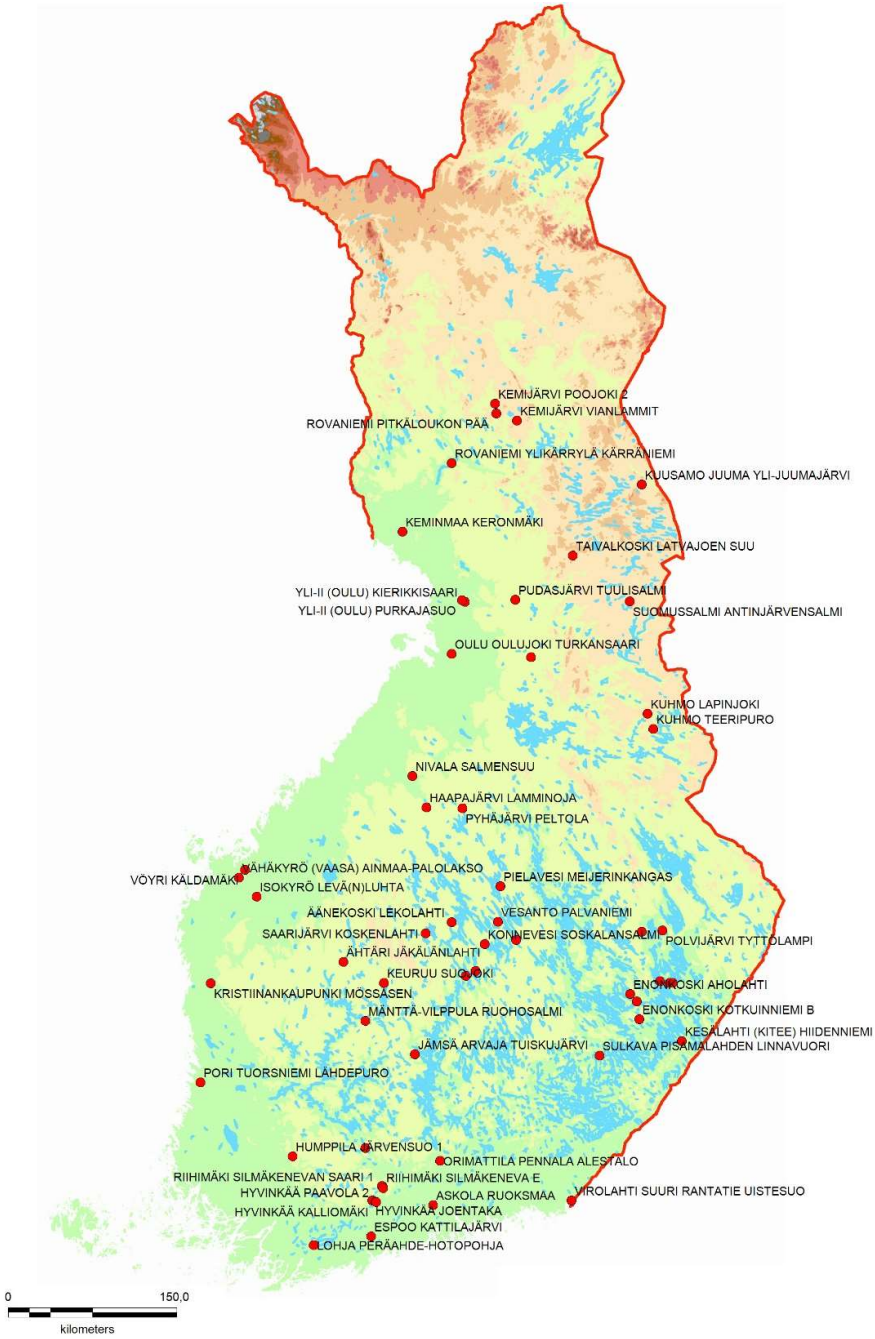

Figure 19. The distribution of wetland archaeological sites known by 2016. Background data provided by the National Land Survey of Finland and the National Board of Antiquities. Map by the author.

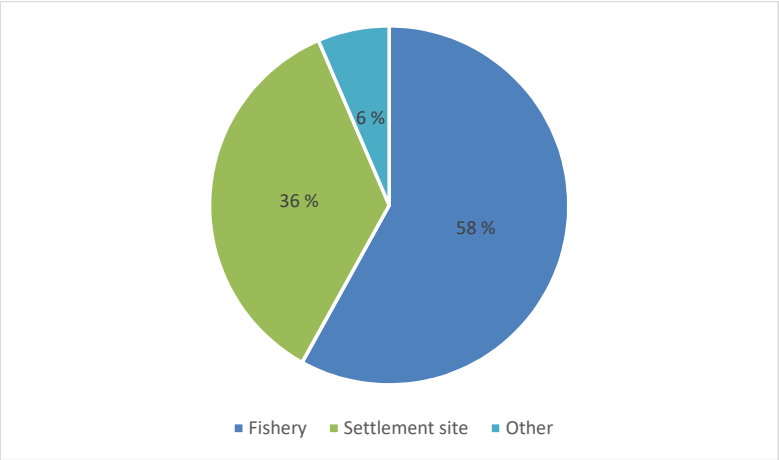

Figure 20. The proportions of wetland archaeological site types (n=63) known by 2016.

However, it has to be acknowledged that many of the unprotected sites require verification on the spot by an archaeologist before their protection status can be upgraded. Furthermore, in some cases the observations suggesting archaeological remains have been made a long time ago and it may well be that the discovery circumstances and the setting of the site have changed significantly through time. Therefore, it may be difficult or even impossible to discover the original location of the suggested archaeological remains.

In addition to the stationary wooden fishing structures that will be more thoroughly described below, a large proportion of the sites associated with wetland habitats described in the first article (Paper I and the references therein) may be categorized as lakeside settlements, which fall within the chronological range between the Late Mesolithic and the Early Iron Age. The discovery of some of the lakeside sites may be seen as the outcome of a few target-oriented survey campaigns conducted in the late 1990s and early 2000s, such as the fieldwork projects by the city museum of Riihimäki, southern Finland (Matiskainen & Ruohonen 2004, Matiskainen & Zhilin 2003) and by the Forssa Museum, south-western Häme (Pesonen 2008). One of the aims of these projects was the discovery of new sites by the shores of potential palaeolakes, and as a result, some positive observations were made in wetlands, such as by the overgrown shores of the Silmäkeneva Mire in Riihimäki and at the Järvensuo Mire in Humppila.

The study (Paper I) also revealed that many of the sites associated with a wetland setting may be categorized as occupation sites or procurement areas for certain resources. A few exceptions, such as sites associated with human

burials deposited in watery environments (e.g., Meinander 1950, Holmblad & Herrgård 2005, Wessman 2009, and earlier articles mentioned in these references) or the caching of timber in peat for preservation purposes (Itkonen 1931, Pälsi 1934, Hirsjärvi 1953, Taavitsainen 1992, Taavitsainen *et al.* 2007) may also be distinguished. The dating of the known sites ranges from the Early Mesolithic – e.g., the Antrea fishnet found in Karelia, former Finland (Pälsi 1920, Kujala 1948, Taavitsainen 1995, Carpelan 2008) – to the historical and early modern period, such as the medieval footbridge of the Uistesuo Bog in Virolahti, eastern Finland (Mikkola 2015). However, a large number of sites have not been securely dated and the age of most sites has remained unresolved. Nevertheless, a certain proportion of the undated sites may convincingly be interpreted as prehistoric, due, e.g., to their locations, contexts, or certain sedimentary characteristics (Fig. 21).

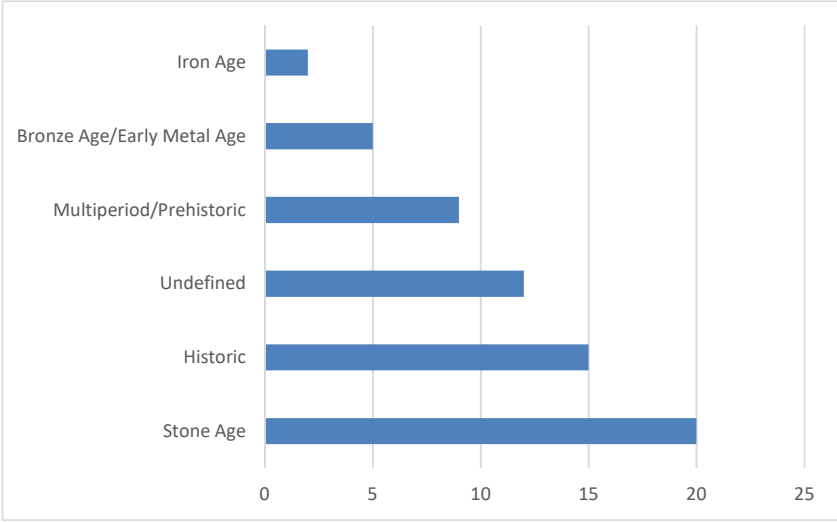

Figure 21. The dating of the wetland archaeological sites (n=63) known in Finland by 2016.

5.1.2 CONTEXTS AND CHARACTERISTICS

The location of a wetland site and its implications for the characteristics of the archaeological remains or assemblages, such as the composition, distribution, and preservation of the materials, is shown to be significant in the study (Paper I). Certain locations, such as islands, overgrown lakes, coastal areas and, in particular, areas affected by strong isostatic rebound may be distinguished as typical locations for encountering archaeological sites preserved in wetland conditions. The shore-bound settlement pattern of the Fennoscandian Mesolithic (ca. 9000–5100 cal BCE) and the (Sub-)Neolithic (ca. 5100–2000 cal BCE) hunter-gatherer groups has resulted in the extensive use of the favourable shores of coastal, riverine, and lacustrine landscapes (e.g.,

Siiriäinen 1981, Kriiska 2003, Núñez 2009). Human occupation was not restricted to the mineral soils, and the nearby waterways, waterfronts, and wetlands constituted an essential part of the living space that was used for an entire range of activities, such as transportation, resource procurement, water supply, washing, swimming, storage, waste disposal, and ritual practices (see Chapter 2 for more information on the perception and use of wetlands).

It is further argued in the study that most of the occupation sites associated with a wetland setting have most probably been 'normal' dryland sites while in use, and they have later been paludified, submerged, or inundated due to various natural processes. Therefore they fall within the thematic group of 'wetland sites' instead of 'wet sites' (see Nicholas 2001), as discussed in Chapter 3. Climatic and environmental changes have altered the landscape and setting of archaeological sites dramatically in Fennoscandia through time. This is especially relevant in areas situated on the north-eastern shores of the Baltic Sea, where the impacts of the strong isostatic rebound, accumulation of alluvial layers, and paludification have been, and still are, visible in the landscape within only one generation.

Based on current archaeological knowledge, it is further argued in this study that there is no convincing evidence in the Finnish archaeological record of the presence of wetland settlements associated with the so called Circum-Alpine pile constructions *sensu* Keller (1866) or somewhat similar pile dwellings known in Eastern Europe (e.g., Mazurkevich 2014ab). The frail evidence of somewhat similar structures, such as the remains of pile rows and other types of wooden constructions at Kärräniemi in Rovaniemi, southern Lapland (Fig. 22) (Siiriäinen 1986; 2004), and at Kierikkisaari island in Yli-Ii, northern Ostrobothnia (Siiriäinen 1967), as well as the few pile remains at Järvensuo Mire in Humppila, south-west Finland (Siiriäinen 1983, 1987) and at Silmäkeneva Mire in Riihimäki, southern Finland (Matiskainen & Ruohonen 2004), do not allow for the identification of pile dwellings based on the current data (see also Koivunen 2002, Lahelma & Sipilä 2004, Seitsonen 2005, Sipilä & Lahelma 2007). Similar sites and structures may well exist in our fragmentary and only partially studied wetland archaeological site record and waterlogged assemblages, especially in light of the distribution of pile dwelling sites in nearby areas to the east and south, but more research and materials are needed in order to improve our understanding of the quantity, quality, and characteristics of Finnish wetland archaeological resources.

Major rivers, especially the ones draining into the Gulf of Bothnia, have been used as routes of communication and exchange of ideas and materials between coastal and inland areas for thousands of years (e.g., Mökkönen 2011, Vilkuna 1974). The resource-rich riverine and estuary landscapes are important milieus archaeologically, but it is further argued in the study that they bear a very special significance from the wetland archaeological point of view because

Figure 22. The island of Kärräniemi in the Kemijoki River in Rovaniemi, southern Lapland, is today almost totally inundated (see the cluster of small bushes in the middle of the channel) because of water-table regulation by a nearby power plant. Photo by the author.

these environments have frequently produced good conditions for the preservation of organic archaeological assemblages. Many of the archaeological remains situated in the dynamic riverine and estuary landscapes have been susceptible to flooding and have thus been covered by alluvial sediments (Fig. 23) or paludified. These factors have sustained good preservation conditions for the archaeological materials that have occasionally been deposited in anoxic conditions between the saturated sediments. The local topography, flooding and other processes enhancing paludification have resulted in the more frequent occurrence of wetland archaeological sites in coastal Ostrobothnia that in other parts of Finland (see Fig. 19). Furthermore, in terms of resources, the emergence of nutrient-rich wetlands in areas of strong isostatic rebound has affected the concentration of resources that were widely utilized by prehistoric populations. It is further argued in the study (Papers II, III and IV) that many of the fishery sites associated with stationary wooden structures are to be found in this part of the country. The local topography together with the environmental circumstances provided remarkably advantageous conditions for the development of a procurement strategy using stationary wooden structures, especially during the productive peak of the Baltic Sea by the end of the Holocene Thermal Maximum (HTM), ca. 4000–2500 cal BCE (Tallavaara & Seppä 2012, Enghoff *et al.* 2007:167, Heikkilä & Seppä 2003).

Figure 23. The corner of an approximately 5000-year-old lath screen section with birch bark bindings revealed in a test pit at Purkajasuo underlying ca. 50 cm of peat and more than 1 m of alluvial sand on top of the Stone Age wooden remains. Photo by Hans-Peter Schulz.

It is also established (in Paper I) that palaeolakes and shallow lakes still under the process of being terrestrialized bear a special significance for wetland archaeology in Finland. Lake terrestialization throughout the Holocene (Huttunen & Tolonen 2006) and the artificial drainage of lake basins in the early modern period (Fig. 24) have been more frequent than previously thought. Small, shallow lakes located near the coastal zone, especially ones in southern and western Finland, as well as long-term sites situated on the shores of major inland water systems, such as Lake Saimaa in eastern Finland, have constituted good fishing grounds and provided a broad spectrum of resources all year round. The prehistoric periodic lakeside settlements in southern Finland (e.g., Siiriäinen 2004, Pesonen 2008, Matiskainen & Ruohonen 2004, Aalto 1981, Vuorela 1981, Sirviö & Kajander 2003) support the idea that spawn fishing in shallow lakes has been a productive and important means of subsistence among the Mesolithic and (Sub-)Neolithic forager communities. The microclimatic conditions in lakes situated near the coastal zone may also have been attractive to human habitation and allowed a wide variety of procurement strategies such as the small-scale 'cultivation' of water chestnuts (*Trapa natans*), the fruits of which have occasionally been deposited at lakeside sites (e.g., Vanhanen & Pesonen 2015). The environmental and climatic factors may also have produced a vegetation composition that has

attracted migratory birds, particularly ducks and geese, among many other species.

The setting and characteristics of the prehistoric lakeside settlements and their implications for the archaeological materials recovered is shown to be significant in the study (Paper I). In comparison with riverbank and estuary sites, lakeside sites seem to be smaller in size, and many of them were probably used as long-term periodic procurement camps for the seasonal utilization of nearby resources. Annual lake level fluctuations, transgressions, and periodic regressions have resulted in formation processes that have affected the sedimentation and preservation of the archaeological remains. Many small lakes have later turned eutrophic and been terrestrialized, or, alternatively, they may have been drained in early modern times. Therefore, the wetland archaeological resources in these types of settings may be extremely deeply buried, which makes them very hard to detect in archaeological survey and prospection. This topic is more exhaustively dealt with in Chapter 4.3 below.

Figure 24. The draining of a lake on the Karelian Isthmus (former Finland) in the 1930s. Photo by the National Board of Antiquities (HK19451228:40.30).

5.1.3 DEVELOPMENT OF FIELDWORK METHODS AND TECHNIQUES

During the analysis of the wetland archaeological data for the first article (Paper I), it was discovered that much of the early wetland fieldwork was basically restricted only to revealing and recovering the organic finds, whereas the surroundings of the find spots were neglected. Many of the sites and assemblages were exposed in wetlands through various land use processes, mainly manual ditching aimed at wetland drainage for agriculture and forestry. When finds were suddenly recovered, there were no viable methods (apart from excavations) or interest in prospecting the surroundings of the bog find spots, and the artefacts were typically interpreted as stray finds lost accidentally or deposited intentionally in wet habitats for some ritual or otherwise unknown purposes (Fig. 25). The development of conservation techniques to ensure the preservation of the organic materials began in the mid-20th century (Nikkilä & Virkkala 1947). First, many of the early bog finds were dated by means of pollen stratigraphy, which was later shown to be inaccurate (e.g., Taavitsainen 2001). Later, from the 1970s onwards, the radiocarbon and dendrochronological dating methods were introduced and applied. The interrelationship between a wetland site and its environment has occasionally been studied multidisciplinarily, such as by means of pollen, plant macrofossil, and entomological analysis (e.g., Vuorela 1981, Aalto *et al.* 1981; 1985, Tranberg 2006, Taavitsainen *et al.* 2007). Even though some of the palaeoecological results may have been published, many of the fieldwork reports were never archived or even completed, which makes the data

Figure 25. The bog hole at Leväluhta in Isokyrö, Ostrobothnia, where dozens of human skulls and other human remains from the Iron Age have been found through the centuries. Photo by Alfred Hackman in 1894. National Board of Antiquities (AKF30381:1).

inaccessible and re-evaluation of the results difficult or even impossible.

In Finnish wetland fieldwork, the excavation area has typically been very small in size. There are only a few exceptions, such as the excavations carried out at the historical timber cache of Suojoki in Keuruu, central Finland (Pälsi 1934, Hirsjärvi 1953, Taavitsainen *et al.* 2007), where nearly 1000 square metres were excavated in only 10 days, and at Purkajasuo in Yli-Ii, northern Ostrobothnia, where excavators were used to remove the peatland tilling layer and the upper parts of the alluvial sand overlying the archaeological wooden remains. At the medieval footbridge of Uistesuo in Virolahti, south-eastern Finland (Mikkola 2015), excavators were used to remove the topmost layers and the fieldwork was carried out in the wintertime with the help of industrial facilities, such as tents, lighting, and heaters (Fig. 26). Especially the fieldwork conducted at Purkajasuo with its large quantities of prehistoric waterlogged wood may be seen as a culmination point in wetland archaeological fieldwork and research in Finland. During and especially after the fieldwork at Purkajasuo, the potential of our wetland archaeological cultural heritage has finally been seen in a broader sense and the possibility of making similar discoveries has been realized and even anticipated.

Figure 26. A massive medieval timber structure revealed underneath the Uistesuo bog in Virolahti during the excavations in 2015. Photo by Vesa Laulumaa, Archaeological Field Services/National Board of Antiquities (AKDG 3910:232).

Furthermore, the study reveals (Papers I and IV) that the most pressing issue in current wetland archaeological research in Finland (and in many other

countries as well) is related to the art of finding new sites in these dynamic and complex landscapes. Our narrow history of wetland archaeological research does not yet reveal any grand openings in this field, and more informative examples have to be sought from other areas. The work of developing viable methods and techniques for prospecting and detecting wetland archaeological resources has been relatively slow even in other parts of Europe and Russia, mostly because mires and peatlands have been perceived as marginal areas for human occupancy and habitation (e.g., Lagerås 2003, Nicholas 2013). The same is very true in Finland as well and a more active approach is needed in order to move forward. This topic is more thoroughly discussed in Chapter 5.3.

5.2 CHARACTERISTICS AND RESEARCH POTENTIAL OF STATIONARY WOODEN FISHING STRUCTURES

5.2.1 THE MID-HOLOCENE WOOD MATERIAL OF PURKAJASUO

The current study presents the first analysis of the Purkajasuo wood material (Papers II and III), which has been recovered over the course of the fieldwork project carried out in 1996–2000 and 2004 (Figs. 27, 28, and 29). A detailed analysis of the wood material (Paper II) revealed that at least three fishing methods were practised by the mid-Holocene inhabitants of the estuary of the Iijoki River between ca. 3934–2679 cal BCE (2σ). Both active and passive methods were used: (1) fishing with stationary wooden structures, such as weirs and traps made of pine lath screens, (2) net fishing, and (3) spear fishing with leisters. The entire weir system, complete with several trapping mechanisms, might have reached across the whole inlet situated by the estuary of the Iijoki River, which was ca. 150–200 m in breadth. The shallow bay of Purkajasuo could have served as a productive fishing ground all year round. Based on the palynological and dendrochronological data (Karinen 2000, Zetterberg & Kinnunen 2009), the wood for manufacturing the fishing structures was collected from nearby forests in the wintertime over a time frame of approximately 19 years.

A rough visual estimate of the species of coniferous and deciduous trees was made already in the field, but the conserved materials were reanalysed during the research process of this study (Paper II). Based on this, pine dominates in the wooden assemblage, and nearly all parts of trees, including branches, twigs, trunks, and bark have been utilized to make the fishing structures and wooden artefacts. Trunks with an average diameter of 70 mm were used for making piles. Unworked wood is also present, suggesting natural vegetation surrounding the fishery. Branches of both coniferous and deciduous trees are deposited at the site, as well as a number of pine cones and pieces of driftwood

Figure 27. Wooden piles at the Leualanpelto area of Purkajasuo during the excavations in 1996. Photo by Hans-Peter Schulz, National Board of Antiquities (AKD39149).

containing a fair number of insect holes. The analysis revealed that some natural pieces of wood were charred, suggesting firewood that has probably ended up at the shorefront from the nearby settlement site of Purkajasuo/Korvala. It is well demonstrated in the study that apart from the massive bulk of Stone Age wood material, the Purkajasuo site provides an extensive body of palaeoenvironmental data preserved exquisitely under humid, anaerobic circumstances under layers that today constitute the peatland agricultural fields of Leualanpelto and Purkajasuo.

5.2.2 PROCUREMENT SPECIALIZATION IN MID-HOLOCENE COASTAL OSTROBOTHNIA

The shallow inlet of Purkajasuo, filled with brackish water and rich in aquatic vegetation, may have served as an ideal spawning arena for several local and migratory fish species. Furthermore, in a low-lying estuary habitat, the spring and early summer flooding seasons may already have been utilized in the early estuarine fishing techniques with stationary structures practiced by the mid-Holocene river populations. In the third article (Paper III), it is suggested that the higher mean temperatures during the Holocene Thermal Maximum (HTM) (e.g., Heikkilä & Seppä 2003) may have allowed some fish species adapted to warmer biotopes, such as eel (*Anguilla anguilla*) and some

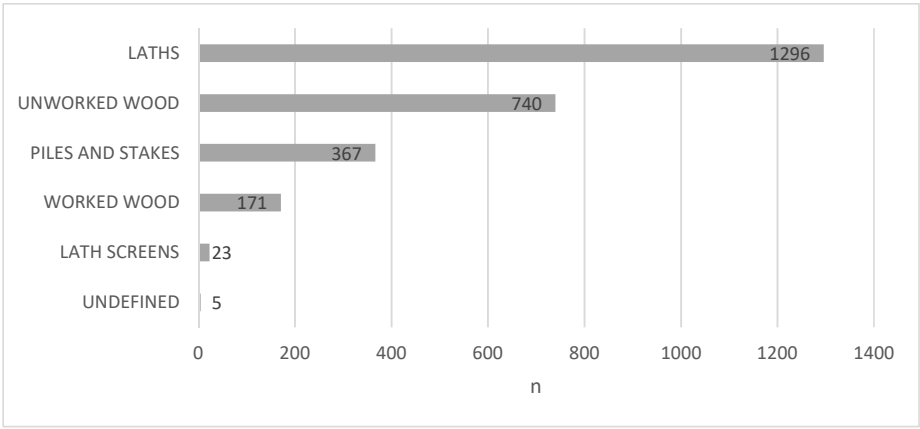

Figure 28. The total number of wood find categories from the wetland excavations at Purkajasuo in 1996–1999 and 2004.

Cyprinid fish, to have had a much wider distribution than today. Changes in fishing patterns may have been interrelated with changes in fish abundance (Lajus *et al.* 2013: 9) and climate change at the end of the HTM could also have meant changes in riverine productivity (see, e.g., Tallavaara *et al.* 2010, Tallavaara & Seppä 2011), increasing the abundance of certain fish. Because of this, the hunter-fisher-gatherer populations may have needed a well-designed strategy for extending the use of seasonally abundant resources, including adequate harvesting and storage adaptations.

Figure 29. Transportation of a lath screen section for conservation. Photo by Donald Lillqvist, National Board of Antiquities (AKD40796).

It is further suggested in the study (Papers II and III) that the prime resource for the coastal Ostrobothnian forager/collector population equipped with the necessary mass harvesting technological skills has presumably consisted of migratory fish, such as Atlantic salmon (*Salmo salar*) and whitefish (*Coregonus lavaretus*) by the river. Climatic and environmental factors have governed the abundance and seasonality of resources in the estuary habitat. It is further argued (Paper III) that the productive fishing grounds may even have been the prime motive for the initial stage of settlement in the area, beginning already during the Early Comb Ware period, ca. 5000 cal BCE. Later, or during the Typical Comb Ware period (ca. 3950–3500 cal BCE), the settlement by the abundant fishing waters may have become more significant and the settlement pattern may have approached semi-sedentism or full sedentism. Cooperative labour and organization were needed to collect the wood, construct and maintain the fishing facilities, and conduct the work of fishing with all its procedures (Fig. 30).

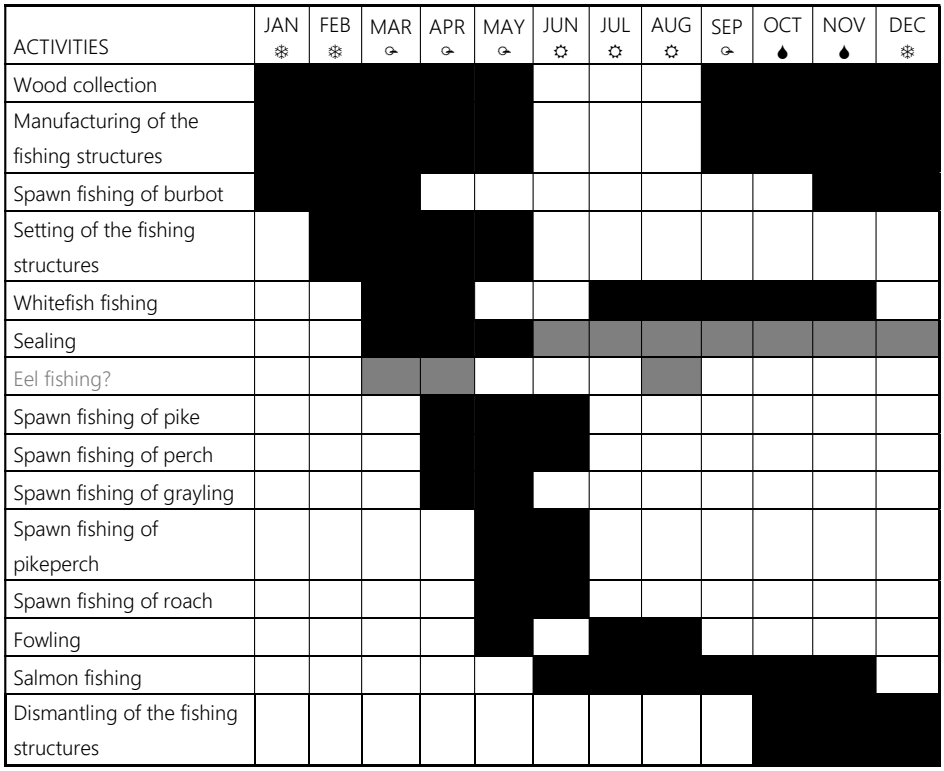

Figure 30. A suggested annual scheme for seasonal activities in the Iijoki estuary between ca. 3500–2900 cal BCE based on this study. Ethnographic information on the procuring seasons of certain resources by Vilkuna (1950; 1974) and Talve (1997).

However, the economic importance of other resources, such as seals, land mammals, and waterfowl, cannot be excluded. Climatic conditions were especially advantageous for applying highly advanced fishing strategies at the end of the HTM, a period that has been characterized by high temperatures and low humidity (e.g., Heikkilä & Seppä 2003).

It is further argued (Paper III) that the effects of the cooling trend starting around 2500 cal BCE may have forced the populations to focus on mass harvesting facilities, exploit the regular migrations of specific species, invest in storage techniques, and produce surplus for exchange. Climatic and environmental changes have probably affected the local resource base and foraging strategies on a larger scale. In terms of resources, it is suggested that the Kierikki hunter-fisher-gatherers would have adapted their site location strategies to maximize fishing by the mouth and banks of the Iijoki River. Fishing may also have aimed at producing a surplus. The delayed consumption of fish would have required storage technology adjusted to local environmental conditions and procurement seasonality. High-resolution palaeoclimatic and palaeoenvironmental records indicate the warmth and relative dryness of the mid-Holocene period (Tallavaara & Seppä 2011: 4), which may have facilitated the success of a whole variety of storage techniques adapted to local conditions, such as sun- and air-drying, smoking, and fermenting of delicate products that spoil rapidly and are obtained in large numbers. Preserved fish, among other locally procured products such as seal oil and furs, may have been used as barter items in the early Baltic Sea and Russian trading networks extending their routes to the coastal Gulf of Bothnia. These products may have been exchanged for exotic materials, such as amber, flint, and asbestos (used as temper in contemporaneous Kierikki and Pöljä pottery), frequently found at the Kierikki sites.

The third article (Paper III) also suggests that fishing in the Stone Age estuary of the Iijoki has been a communal undertaking. Changes in the settlement pattern in the contemporary housepit sites from ca. 3500 cal BCE onwards may be seen as reflecting increased social communality (e.g., Vaneeckhout 2010), which may have allowed joint initiatives in resource procurement, for instance mass-fishing in the estuary. Seasonally and spatially aggregated resources that are harvested on a large scale form the basis for larger population densities, more sedentary settlement patterns, and cultural (and social) complexity (see Testart 1982, Prentiss & Chatters 2003). Fishing was evidently significant and profitable for the Iijoki River populations, but at the same time it was a very demanding, labour-intensive, and organizational livelihood. Perfect timing and the ability to maximize the catch and its preservation for delayed consumption have been seen as the key elements for developing highly sophisticated procurement strategies adapted to the local resource base (Matsui 2005). Social complexity is often involved with societies that use specialized foraging strategies for making the most of the seasonally

abundant and reliable resources, which typically permit a certain degree of status competition (see, e.g., Hayden 1990). The storage and delayed consumption of aggregated and seasonally abundant food products rich in protein (such as salmonids) provide opportunities for creating prestige and wealth in society (Hayden 1990), and these in turn are related to population growth, opportunities to make a surplus, and the development of a certain degree of social inequality (see Sakaguchi 2009). The stability of the local resource base accompanied by the abundance and resilience of the main food resource may support the idea of socioeconomic competition, which may explain some characteristics of the Kierikki sites, such as the clustering of housepits, the site locations, and the artefactual assemblages and materials (e.g., Vaneeckhout 2009a; 2010).

5.2.3 STATIONARY WOODEN FISHING STRUCTURES IN TIME AND SPACE

Apart from the estuary fishing theme elaborated through the Purkajasuo material, the third and fourth article (Papers III and IV) bring together the Finnish fishery sites associated with wooden structures preserved in wetland settings, which are then compared and evaluated in the light of ethnographic information on similar structures used in Finland and Karelia (former Finland) in the late 19th and early 20th centuries. Approximately 90 sites associated with stationary wooden fishing structures have been discovered in peatlands and muddy lake sediments through, for example, drainage, dredging, and peat cutting (see Appendix III). The archaeological wooden remains have been deposited in peatlands due to isostatic land uplift, lake terrestrialization, and other factors enhancing paludification, or they are still located in shallow water. About 70% of the fishing structures are located in shallow submerged conditions, such as at lakeshores or in small brooks and rivers. Approximately 19% of the sites are located in peatlands or the wooden structures underlie alluvial sediments. Among 11% of the sites, the characterization of the environmental setting has remained undefined due to insufficient information available in the archives. Many of the sites were found by local people during drainage improvement operations or during periods of low water. Only a handful of the fishing structures have been found by archaeology professionals during field survey or site evaluation.

A number of sites associated with stationary wooden structures were already included in the compilation of wetland archaeological resources in the first article in 2011 (Paper I). The list has now been updated based on the most recent discoveries that have come to my knowledge during the research process of this study after 2012. The number of fishery sites has multiplied, and, today, wooden stationary fishing structures comprise the most numerous category of our wetland archaeological cultural heritage. Based on the distribution of the known sites (Fig. 31), some typical locations for

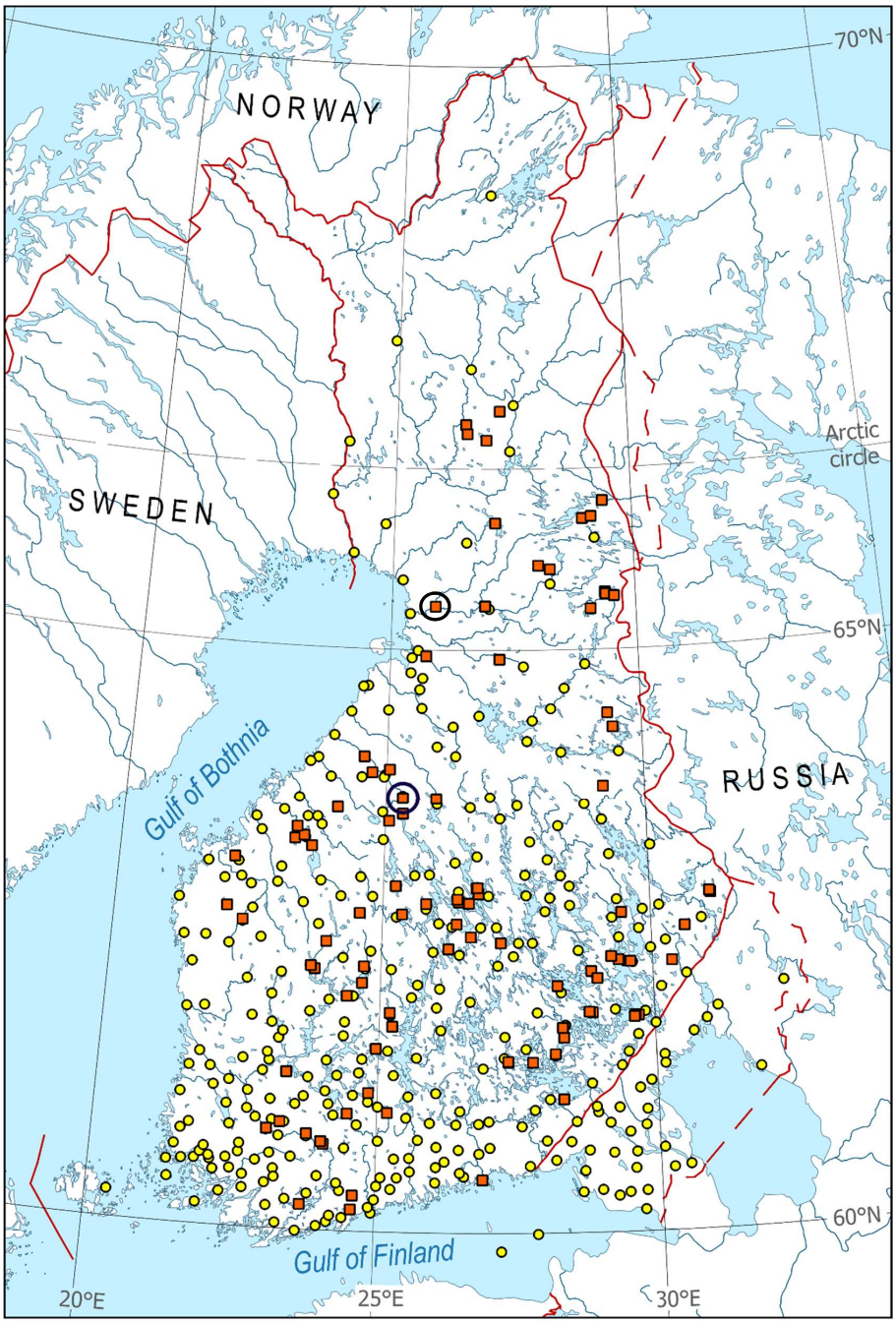

Figure 31. Composite map of Finland and the locations of the archaeological fishery sites associated with stationary wooden structures (red squares) and the ethnographic information (NBA 1961) on fishing with similar structures (yellow dots). The Purkajasuo and Lamminoja sites are highlighted. Background data provided by Natural Earth, National Board of Antiquities, and the author. Map by Niko Latvakoski.

encountering similar structures may be distinguished. Many of the fisheries are located by the major Ostrobothnian rivers in western Finland, in the area of large lakes in central and eastern Finland, and in Häme, south-west Finland. Many of the securely dated structures (Table 2) have yielded prehistoric dates ranging from the middle of the (Sub-)Neolithic period to the early Iron Age, between ca. 3934–118 cal BCE (2σ). A few of the securely dated samples have resulted in historical and early modern datings, falling approximately between the 14th and 19th centuries CE.

Table 2. *Radiocarbon and dendrochronological dates of the stationary wooden fishing structures known by 2016. Data provided by the National Board of Antiquities (2016) and the Argeopop project (Pesonen & Sundell 2011).*

Lab. Code	Site	Context	Wood sample	BP	cal (2 σ)	References
Hel-2740	Yli-Ii Purkajasuo	fish trap	worked lath	4770±130	3934–3111 BCE	Koivisto 2011; 2012
Beta-331814	Haapajärvi Lamminoja	fish trap	worked lath	4560±30	3487–3107 BCE	Koivisto *et al.* forthcoming
Hel-3918	Yli-Ii Purkajasuo	fish trap / weir	unworked wood	4460±100	3489–2900 BCE	Koivisto 2011; 2012
Hel-3282	Kurikka Hiipakanluhta	fish trap	worked lath	4390±120	3493–2681 BCE	Jungner & Sonninen 1998, Koivisto 2012
Hel-3917	Yli-Ii Purkajasuo	fish trap / weir	worked stake	4340±100	3349–2681 BCE	Koivisto 2011; 2012
Hela-1400	Kesälahti Hiidenniemi	fish weir	worked stake	2820±45	1114–847 BCE	Forsberg *et al.* 2009, Koivisto 2012
Hela-1399	Kesälahti Hiidenniemi	fish weir	worked stake	2180±35	366–118 BCE	Forsberg *et al.* 2009, Koivisto 2012
Su-3341	Evijärvi Lake Sulkajärvi	fish trap	worked lath	400±40	CE 1432–1633	Koivisto 2012
Ua-52317	Espoo Muulo (Mulby) Lasilaakso	fish weir	worked pile	416±29	CE 1430–1618	Tevali 2015
Ua-52318	Espoo Muulo (Mulby) Lasilaakso	fish weir	worked lath	521±30	CE 1324–1443	Tevali 2015
Beta-423481	Hämeenlinna Varikonniemensuo	fish weir	worked pile	2700±30	905–806 BCE	Luoto 2015
Dendrochronological dates:						
	Saarijärvi Ruokonen	fish trap			CE 1809–1823	Zetterberg & Zetterberg 2013
	Suomussalmi Öllöri 2	fish weir			CE 1639–1840	Zetterberg & Zetterberg 2011
	Suomussalmi Iso-Valkeainen	fish weir			CE 1676–1907	Zetterberg & Zetterberg 2011
	Suomussalmi Keski-Valkeainen	fish weir			CE 1703–1924	Zetterberg & Zetterberg 2011

If the distribution of the archaeological fishing structures is compared with the ethnographic record (Fig. 31), some observations may be made. Contrary to the ethnographic record, the archaeological wooden remains are not known from the south-western and western coastal parts of the country. Especially in central and northern Ostrobothnia, western Finland, the fishery sites seem to occur ca. 20–60 km away from the current coastline. This may indicate that fishing structures have not been preserved in the coastal belt, that they were used in lake fishing only, or, alternatively, that the site distribution may

indicate the previous stages of the Bothnian coastline affected by rapid postglacial rebound and thus suggest older dates. Further investigations and a systematic dating program, however, are essential to verify this assumption. Furthermore, the areal distribution of the replies to the ethnographic questionnaire (NBA 1961) may be assumed to be somewhat biased and not necessarily reflecting the 'real' occurrence of this type of fishing apparatus in historical times.

It is further concluded in the study (Papers III and IV) that stationary fishing structures manufactured of wooden laths bound together with plant materials and erected at the regular routes and spawning grounds of certain fish species in both running and still waters represent a relatively common type of wetland archaeological resource in the north-eastern Baltic Sea region and western Russia. The laths have typically been made of pine wood because it has long wood fibres and relatively few branches. They have been bound up with bast, wicker, or birch bark strips into lath screens for weirs and traps (e.g., Vankina 1970, Bērziņš 2008, Loze 1979; 1988; 2001, Lozovski 1999, Lozovski *et al.* 2013, Rimantienė 1992; 1998, Burov 1972; 2001, Kraynov 1991, Levenok 1969). In the Finnish (Sub-)Neolithic fishing structures, narrow strips of birch bark have been preferred as binding material for the lath screen modules. Both the archaeological and ethnographic record demonstrate that similar designs have remained unchanged for several millennia (see also Pedersen 1995: 81), as fishing gear has been optimized for catching certain species in a specific habitat. Based on ethnographic sources (Sirelius 1906abc; 1907; 1908, NBA 1961), the spawn fishing of pike (*Esox lucius*), perch (*Perca fluviatilis*), burbot (*Lota lota*), and roach (*Rutilus rutilus*) with stationary wooden structures provided a profitable and reliable livelihood in historical Finland. The current study shows that similar techniques have been applied both in lacustrine and estuary fishing in Finland already during the (Sub-)Neolithic period.

5.3 POSSIBILITIES IN PROSPECTING WETLAND ARCHAEOLOGICAL RESOURCES IN PEATLAND ENVIRONMENTS

Most of the results obtained through the experimental geophysical survey and ground truthing campaign conducted at the Lamminoja fishery were negative, but still informative (Paper IV). The waterlogged wood was not detected with any of the techniques used, which may be assumed to be due to the small size of the target object and the low magnetic properties of Stone Age wood in these environmental conditions. There were other types of archaeologically relevant features at Lamminoja, however, that were detectable by means of geophysical methods, such as the overgrown drainage ditches, the iron-rich concretion, and some elements of the local sedimentological history. It was also possible

to draw conclusions about the dimensions and some of the properties of the buried objects evaluated via trial excavations.

The origin of a number of anomalies was not revealed even with the help of ground truthing. Certain sediment properties and the effects of modern drainage were eventually discovered to produce most of the reflections detectable with geophysics. Important information was gained via test pits sited over the anomalous features. The ground truthing of one of the anomalies (anomaly 2) and its AMS dating (Beta-362538) revealed Late (Sub-)Neolithic organic-rich sediment formation and charcoal, which probably originated from prehistoric anthropogenic activity, such as occupation or resource utilization at the site between ca. 2199–1981 cal BCE (2σ). The rest of the anomalies were mainly produced by modern land use activities, most of all drainage.

However, our investigations and AMS dating (Beta-331814) revealed that at least one part of the fishing structure exposed in the Lamminoja channel today was not used for coastal or estuary fishing, like some other contemporary fishery sites, for example those at Purkajasuo (Paper II and III) and Okhta 1 (e.g., Kulkova *et al.* 2012). Instead, it was used in lacustrine fishing between ca. 3487 and 3107 cal BCE (2σ) (OxCal v4.2.3 (Bronk Ramsey 2009); IntCal13 (Reimer *et al.* 2013)). It has to be taken into account, however, that the same fishery sites may have been used in the long term if the ecological conditions have favoured the abundance of certain fish species and facilitated the procurement of an adequate catch. This has also been acknowledged in connection with the stone-built Lapp weirs of northern Finland (Okkonen & Heikkilä 2011:43), where several of the sites are located in the vicinity of prehistoric hunting and settlement sites, suggesting the utilization of the same fishing locations for several millennia.

Our results show that the prehistoric lake situated in the Lamminoja valley was surrounded by pine-dominated forests and the shores of the lake were already in the process of being overgrown with an abundance of *Sphagnum* by ca. 2000 cal BCE (Alenius 2014). The plant macrofossils represent species connected with human occupation enriching the soil with nutrients, especially common nettle (*Urtica dioica*) and common chickweed (*Stellaria media*) (Vanhanen 2014). Only one aquatic plant, pondweed (*Potamogeton* sp.), was identified in the material; all the other species reflect lush lakeside vegetation and thus indicate an advanced overgrowing phase of the lake, which may have facilitated advantageous conditions for the spawn fishing of, for example, pike and some Cyprinid fish species. The fieldwork also revealed that the site extends over a much larger area than previously thought and that the archaeological wooden structures cover an area of at least 100 m² on both sides of the brook channel. Furthermore, most of the over 5000-year-old wooden

structures are still in an upright position, in their original setting, erected at the site by the mid-Holocene hunter-fisher-gatherers.

It may thus be concluded that the relatively light-weight wooden structures associated with Stone Age fishing activities buried in peat are very challenging to detect with the help of applied geophysics alone. The testing, especially with the GPR, provided a realistic view of the applicability of this technique in drained peatlands. However, it was discovered that the magnetometer responded to certain remanent magnetic anomalies even underneath saturated peat layers. This study shows that ground truthing of the anomalies is essential for understanding what actually produces the geophysical anomalies. Otherwise the evaluation of the results lies on unstable ground. There may, however, be other types of archaeological features associated with prehistoric fishing activities that are more reliably detectable by geophysics.

5.4 THEORETICAL AND PRACTICAL IMPLICATIONS

Based on this study, Finland has extensive wetland archaeological potential. The location of the wetland site and its implications for the archaeological record in terms of, for example, the preservation of the materials recovered is significant. The major factors affecting this are environment-driven, caused by the highly dynamic geology and climatic fluctuation typical of northern Fennoscandia, which have previously not been taken into consideration in Finnish wetland archaeological studies. The various perceptions of wetlands have also been considered, slightly contextualized, even theorized, with the aim of integrating our wetland archaeological cultural heritage with the international discourse that seeks to further our understanding of these lost landscapes rich in archaeology. In this study, some previous suggestions have also been discussed, for example, in connection with wetland settlements associated with the so-called Circum-Alpine pile constructions (Keller 1866) and somewhat similar wooden structures known from Eastern Europe (e.g., Mazurkevich 2014ab). Based on the current data, the presence of pile dwellings in the Finnish wetland archaeological record has not been convincingly demonstrated to date. Thus, in contrast to the earlier literature (e.g., Siiriäinen 1967; 1983; 1986; 1987; 2004, see also Lahelma & Sipilä 2004, Seitsonen 2005, Sipilä & Lahelma 2007), this study maintains that the frail evidence for somewhat similar structures, such as the remains of pile rows and other types of wooden constructions found in wetland conditions, do not yet allow the identification of similar structures in Finnish wetlands.

The case studies described in this study demonstrate that stationary wooden fishing structures preserved in wetland conditions yield valuable evidence for investigating fishing methods and the mode of subsistence among prehistoric populations. Because of the richness of the wooden artefacts and

environmental data preserved at these sites, similar conclusions could not have been attained through the use of archaeological assemblages recovered in dryland contexts. The reason why the number of fishery sites associated with wooden structures has multiplied in recent years may reflect certain changes in attitudes in Finland, as lath screen traps and weirs have previously been considered too difficult to contextualize and evaluate for archaeological relevance. They have merely been seen as falling within the branch of ethnography and the preservation of local arts and crafts. After the first article was published in 2011, the total number of wetland archaeological sites has progressively increased (see Chapter 2) and most of the newer sites represent fisheries. These well-preserved wooden remains have also attracted international attention, and today fishery studies are quite frequently conducted and published in the Baltic Sea area (e.g., Bērziņš *et al.* 2016, Lozovski *et al.* 2014, Piličiauskas *et al.* 2012, Mazurkevich *et al.* 2010, Hartz & Kraus 2009, see also Lajus *et al.* 2013). Most importantly, fishing structures have played a central role in Finland, as fish have constituted an essential part of subsistence and diet among the prehistoric foragers and even later agrarian populations. If my studies on this topic have played a role in the obvious change in attitude, it may be seen as an important outcome of this work.

In the case of Purkajasuo, contrary to previous suggestions (e.g., Núñez 1995, Schulz 1997; 1998a; 1998b; 2000; 2001), it is argued in this study that the wood layers have been formed merely by means of natural processes, such as by progressive sedimentation in a flood-susceptible area, rather than by human activity. The radiometric and dendrochronological datings (Zetterberg & Kinnunen 2007; 2009) are in line with this assumption and suggest highly dynamic environmental factors influencing the local geology and sedimentation. In addition, as opposed to the previous suggestions of the Kierikki populations basing their subsistence strategies on sealing (e.g., Halinen *et al.* 1998), it is now argued that the productive fishing grounds may even have been the prime motive for the initial stage of settlement in the area. Based on indirect fishing-related evidence utilized in this study, the importance of river fishing and pursuing migratory species, namely Atlantic salmon (*Salmo salar*) and whitefish (*Coregonus lavaretus*), is suggested to have been topical for the middle (Sub-)Neolithic Ostrobothnian river populations, even though the fish bone taxa do not support this assumption.

The findings of this study also complement some earlier research (e.g., Armstrong 2010, Van de Noort *et al.* 2002) by emphasizing that there is an urgent need for non-invasive and cost-efficient techniques to detect buried or submerged wetland archaeological remains, and tests and experiments related to this work are essential. Adequate funding for development work is a prerequisite, as wetland fieldwork is much more costly and time-consuming than dryland excavations. Furthermore, the organic materials these excavations may produce require lengthy and expensive preservation and

conservation strategies in addition to adequate storage facilities. The monitoring of the conserved organic assemblages in the collections has also been brought up, specifically, the importance of detecting changes in morphology due to storage and conservation techniques, which was shown to be significant in the case of the Purkajasuo material.

The archaeological potential of wetlands has not been properly examined or utilized in many European countries, and, unfortunately, the same applies emphatically to Finland. Cooperation and collaboration are important in the attempt to overcome at least some of the obstacles hindering wetland research. Multidisciplinary approaches integrating the natural sciences and archaeology are especially relevant in demanding wetland settings. Stratigraphic investigations, environmental reconstruction, and the testing of viable techniques may allow us to proceed from site-specific investigation to more large-scale environmental archaeological assessment. Cooperation with peat extraction companies would also provide us with better opportunities to conduct fieldwork in peatland areas and allow us to inspect more extensive areas more efficiently.

Finland was among the first countries to ratify the international Ramsar Convention on Wetlands in 1971 (Larsson 2004), and currently its plan of action is being redefined in Finland. The Ramsar member states are committed to the aims of working towards the intelligent utilization of wetlands, designating suitable sites for the Ramsar list, and cooperating internationally. In the selection of national wetland sites for the list, special attention has to be paid also to the cultural heritage of the sites. In other Ramsar countries, approximately every other wetland site included on the list has a rich and versatile cultural heritage in addition to its natural values. In Finland, this commitment has not yet been fulfilled, but now the new Ramsar workgroup will take this theme into consideration, which is a huge improvement and acknowledgement to the wetland archaeological cultural heritage of Finland.

Despite the fact that there are huge wetland areas in Finland and that the moist, anoxic conditions preserve organic archaeological remains well, there has been no systematic agenda for managing and securing the preservation potential of wetland archaeological resources in Finland. This also has implications for archaeological heritage management, and I would like to challenge the current situation and steer the emphasis towards these previously overlooked habitats rich in archaeology in order to encourage the investigation of a broader scope of human ecosystems. All the articles included in this dissertation aim to demonstrate the huge scientific and interpretative value of wetland archaeological resources in Finland. This study also seeks to outline and emphasize the most pressing challenges facing wetland archaeological research today: increasing land use planning that affects

wetlands, such as the building of motorways, industrial and residential areas, and improved drainage constantly lower the water table and hence diminish the preservation potential of our wetland archaeological heritage. The lack of viable and (cost-)effective prospecting methods constitutes the greatest obstacle restricting fieldwork and narrowing our chances of taking these environments into consideration during lengthy and complicated planning of land use processes. Even today, there seems to be no clear strategy or stepped approach in the Finnish heritage management system for evaluating the archaeological research potential of wetland areas. Luckily, in certain parts of Finland, some improvements have been seen in recent years and the archaeological threat mitigation procedures have even been extended to cover wetland areas (NBA 2012). Some of these precedents have actually been quite productive, like one of our most recent wetland discoveries – a sturdy medieval footbridge uncovered in the Uistesuo Bog in eastern Finland (Mikkola 2015). In this case, historical maps were duly reanalysed and evaluated by the heritage management authorities because there were plans for building a motorway across the area. Archaeological excavations were conducted at the site and an extensive plank-built footbridge was excavated and documented at the site before the onset of construction work.

What is essentially needed today in order to improve and develop wetland archaeology as a discipline in Finland are more possibilities (with proper funding) for conducting wetland archaeological fieldwork and research. Central issues are steering heritage management procedures to cover wetland areas and conducting research-based projects within these hidden landscapes. This would also guarantee better opportunities for making new discoveries that are not only well preserved and representative, but also easily perceived as something valuable and of great significance by archaeologists and the general public alike. Wetland evaluations, systematic survey in potential areas, proper excavations, well-designed projects with sufficient funding, prospecting the find spots of old stray finds, cooperation with different land-use planning actors, and extending dryland fieldwork to nearby wetlands – these are some propositions for how to proceed. Public outreach is essential in every field in archaeology, enabling us to confirm the importance of the past and further our understanding of the present, and this is especially relevant in wetland habitats, which have long remained in the background. Now it is time to bring them to the forefront.

6 CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the foregoing, the following conclusions can be made:

- Due to its environmental, geological, and climatic factors, Finland is very promising in terms of the existence and preservation of wetland archaeological resources – only a fraction of these resources have been revealed to date.
- The total number of wetland sites has multiplied in the course of this study: more than 60 sites are known at the moment and the total number may even exceed one hundred after potential sites are verified on the spot.
- Most of the sites have been found 'accidentally' through drainage and other land use processes.
- Climatic and environmental factors have frequently altered the habitats and burial environments of wetland archaeological sites.
- The areas with the highest potential for encountering wetland archaeological sites in Finland are river estuaries, coastal areas affected by strong isostatic rebound, and terrestrialized lakes.
- Fishery sites with associated stationary wooden structures represent the most numerous wetland archaeological site type in Finland.
- The same fishing locations and structure types may have been used for several millennia.
- The (Sub-)Neolithic populations occupying the north-eastern shores of the Baltic Sea already practised passive fishing with stationary wooden structures around 4000–2700 cal BCE.
- The first analysis of the extensive mid-Holocene wood material of Purkajasuo presented here revealed that at least three fishing methods were practised in a shallow bay by the Stone Age estuary of the Iijoki River from ca. 3500 cal BCE onwards.
- The quality and quantity of this material suggest that fishing played an essential role in the economy of the populations inhabiting the mouth and banks of the Iijoki River.
- It is further suggested that fishing was a communal undertaking and that populations may also have developed techniques for mass-harvesting, processing, and storing fish.
- The fishery sites associated with stationary wooden structures may be extensive and there may be other types of archaeological remains and materials associated with the wooden structures.

- The most pressing issue hindering wetland archaeological research is the lack of viable techniques for the detection and prospection of sites.
- Waterlogged wood buried in peat is very challenging to detect with geophysical techniques due to insufficient physical contrast, burial depth, the small size of the target object, and complex sediments affected by modern drainage.
- Topographic modelling, palaeoenvironmental investigations, subterranean modelling, and allocating fieldwork to archaeologically potential areas are recommended in the search for wetland archaeological sites.
- Historical and ethnographic sources provide additional useful materials for investigating potential areas containing wetland archaeological sites.
- Drainage, peat extraction, acidification, and climate change are crucial for the preservation of organic archaeological remains situated in wetland landscapes.

Future research topics that have emerged during the preparation of this work can be stated simply: we need more fieldwork and research focusing on Finnish wetlands. To begin with, more radiocarbon and dendrochronological datings are urgently needed, not only to obtain more detailed datings of the archaeological sites themselves, but also for dating the stray finds, such as dugout boats and other well-preserved wooden artefacts, the dating of which has remained unresolved. A well-designed dating program to reveal the characteristics of the still somewhat enigmatic stationary wooden fishing structures would also elucidate the origin and dating of this important wetland archaeological resource and provide better preconditions for heritage management authorities to evaluate the fishery sites. More datings of the Purkajasuo materials are also urgently needed, as well as of the other previously (but only partially) excavated wetland archaeological sites, such as Järvensuo in Humppila and Silmäkeneva in Riihimäki. Re-excavations and multidisciplinary research at these important sites would yield valuable new insights on the characteristics and use periods of the sites, and such approaches are highly recommended in the future. In addition, the tool mark and wood species analyses of the organic artefacts would yield valuable information on the technological and environmental adaptations and selection of wood species in dynamic landscapes. The documentation of organic artefacts with 3D techniques, such as terrestrial laser scanning (see Lobb *et al.* 2010) and photogrammetry, provide some interesting techniques for experimenting with organic archaeological assemblages. These techniques may also be utilized for tool mark analysis and monitoring the wooden artefacts in order to detect changes in morphology during or after storage and conservation, for example (Fig. 32). Various multidisciplinary approaches could also elucidate the environmental and climatic conditions of eastern Fennoscandia during the late Atlantic and Subboreal chronozones.

Figure 32. Faceting on the surface of a pile (KM 34860:42) from Purkajasuo. Photo by the author.

If an empirical correlative model for wetland archaeological site detection purposes is pursued in the future, problems may appear due to issues such as changes in the burial environment, wide-scale variation in wetland archaeological site types, and site composition. Therefore, careful peat stratigraphic investigations through geological coring and trial excavations are a prerequisite for understanding the character and scale of the environmental changes at least on a certain scale. On many occasions, the resolution will be significantly lower than anticipated, and this is a fact that simply has to be accepted. In addition to excavation and documentation campaigns, it would be appropriate to conduct large-scale environmental archaeological assessments for investigating human response to environmental change in the long term as an integration of archaeological, geophysical, palaeoecological, and geological data. Topographic modelling, palaeoenvironmental investigations, subterranean modelling (by means of geological coring and geophysics, for example), and allocating fieldwork to archaeologically potential areas may be applied in areas of interest in order to define the character and total scale of wetland archaeological sites.

As for prehistoric fishing, and more precisely the question of how extensively the major Ostrobothnian rivers were utilized by the Stone Age hunter-fisher-gatherer populations, these are alluring topics and highly recommended for future investigations. It was suggested in the third article (Paper III) that the

riverbank housepit sites of Kierikki, especially the ones located by the rapids and islands, may be assumed to have been associated with mass harvesting and/or processing locations of migratory fish. The quest for direct evidence of fish as a food source (especially in the case of protein-rich, seasonally abundant, and tasty salmonids), as well as the preservation, occurrence, and recovery of fish bones in archaeological assemblages, calls for multidisciplinary research in addition to technical excavation experiments, soil-chemical analysis, and statistical approaches. In addition, the fishing theme is topical from the ecological viewpoint, as changes in fishing patterns may be assumed to be closely related to changes in fish abundance, that is, changes in fishing patterns can both cause and be affected by changes in fish abundance (see Lajus *et al.* 2013:9). Therefore, archaeological research concentrating on fish remains and other fishing-related sources will be highly relevant and useful for various multidisciplinary approaches.

This work has sought to demonstrate that wetland archaeological resources are central to archaeological research in Finland, but a highly relevant question is, for how long? For instance, at Purkajasuo, a large number of wooden artefacts and fishing structures were already revealed to be so poorly preserved when uncovered in the late 1990s and early 2000s that their recovery was out of the question. The deterioration of the organic archaeological remains is mostly due to the progressive lowering of the water table through intensified drainage. Even though the peatland agricultural fields of Purkajasuo are not currently cultivated, acidification caused by agriculture might also have an effect on the degree of degradation of the material. It may well be that not much would be left if the site were revisited and excavated in the future. The deterioration of these fragile sites and artefacts is the most significant reason why wetland archaeology is more topical today than ever before. Wetland archaeological resources are progressively and inevitably deteriorating due to drainage, acidification, and climate change, and if we do not respond quickly to this challenge, future generations of archaeologists may not have much left to study.

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APPENDIX I

List of wetland archaeological sites in Finland

APPENDIX I: LIST OF WETLAND ARCHAEOLOGICAL SITES IN FINLAND

NAME	HABITAT	DATING	DESCRIPTION	ORGANICS	OTHER MATERIALS	WETLAND EXCAVATION AREA	FIELDWORK	KM	SITE ID (NBA'S REGISTER)	REFERENCES
ANTREA KORPILAHTI	coastal, inlet	Early Mesolithic	net find with associated artefacts, Ancylus lake deposition	net floats, bone artefacts, net remains	stone artefacts, net sinkers	ca. 24 m^2	Pälsi 1914	6688	(former Finland)	Pälsi 1920, Kujala 1948, Taavitsainen 1995, Carpelan 2008, Miettinen *et al.* 2008
ASKOLA RUOKSMAA	lake shore	Bronze Age / Early Iron Age	settlement site, water level fluctuation, lake terrestrialization	-	ceramics	undefined	Luho 1949, 1951-1953, 1972	12010, 12261, 12931, 13067, 13303, 18928, 19006, 19189, 29031	18010058	Meinander 1954
ENONKOSKI AHOLAHTI	lake	undefined	accretion, shallow water	stationary wooden fishing structures	-	-	Koivisto 2006 (survey)	-	1000007857	
ENONKOSKI KARJALANLAHTI	lake	undefined	accretion, shallow water	stationary wooden fishing structures	-	-	Koivisto 2006 (survey)	-	1000007860	
ENONKOSKI KOTKUINNIEMI B	lake shore	(Sub-)Neolithic-Early Metal Age	settlement site, shoreline erosion	-	quarz, ceramics	a few sq. meters	Vanhatalo 1997	24911, 26662, 30791	1000000413	
ESPOO KATTILAJÄRVI	lake	undefined	fishery, shallow water	stationary wooden fishing structures	-	-	unverified	-	2372	
HAAPAJÄRVI LAMMINOJA	lake	(Sub-)Neolithic	fishery, lake terrestrialization	stationary wooden fishing structures, occupation layer?	-	5 sq. meters	Latvakoski 2011 (survey), Koivisto et al. 2012-2013	37193	1000018519	Koivisto & Nurminen 2015, Koivisto *et al.* forthcoming
HUMPPILA JÄRVENSUO 1	lake shore	(Sub-)Neolithic-Early Metal Age	settlement site with pile-constructions, water chestnut 'cultivation', lake terrestrialization	wooden artefacts, e.g., paddles, scoop, fishing gear, macrofossils	lithics, ceramics	5-6 m^2	Siiriäinen 1985	10496 (ethn. col.), 21493, 23822, 30676, 32928, 33385, 34489	103010001	Aalto 1983, Aalto *et al.* 1985, Siiriäinen 1983; 1987
HYVINKÄÄ JOENTAKA	lake shore	Late Mesolithic-Early Metal Age	settlement site, water level fluctuation, lake terrestrialzsation	-	quartz, fire-cracked stones	a few sq. meters + corings	Bilund 2002	9640, 32664, 33456	106010021	Matiskainen & Ruohonen 2004
HYVINKÄÄ KALLIOMÄKI	island, lake	(Sub-)Neolithic	settlement site, water level fluctuation, lake terrestrialization	-	quartz, ceramics	drainage ditch sections	Bilund & Seitsonen 2001 (survey)	32633	106010007	Matiskainen & Ruohonen 2004
HYVINKÄÄ PAAVOLA 2	island, lake	Stone Age	settlement site, water level fluctuation, lake terrestrialization	-	quartz, burnt bones, charcoal	-	Bilund & Seitsonen 2001 (survey)	32662	106010019	Matiskainen & Ruohonen 2004
HÄMEENLINNA VARIKONNIEMENSUO	lakeshore	Bronze Age	fishery, lake terrestrialization	stationary wooden fishing structures	multiperiod occupation by the shore, historic ceramics etc.	ca. 100 m^2?	Luoto 2015 (trial excavations	-	1000027906	
ISOKYRÖ LEVÄ(N)LUHTA	inland, lake	Iron Age	lake cemetery, lake terrestrialization, strong isostatic rebound	human and animal remains, wooden piles, bone artefacts	iron and bronze artefacts, burned clay, clay daub, stone chisel	ca. 300-400 m^2	Rancken 1886, Hackman 1894, 1913, Tallgren 1912, Erä-Esko 1982-84, university of Helsinki 2012-2014	2440, 2441, 2996, 6110, 6373, 21813, 21814, 21926	152010020	e.g. Hackman 1913, Meinander 1950, Seger 1982, Formisto 1993, Edgren 1994, Holmblad 2005, Niskanen 2006, Wessman 2009
JÄMSÄ ARVAJA TUISKUJÄRVI	lake	Historical	fishery, shallow water	stationary wooden fishing structures	-	-	Kumpulainen 2003 (inspection)	-	1000001480	
KEMIJÄRVI POOJOKI 2	lake / river	Historical	fishery, shallow water	stationary wooden fishing structures	-	-	Häkälä 2014 (survey)	-	1000029311	
KEMIJÄRVI VIANLAMMIT	lake / inlet	Historical	fishery, shallow water	stationary wooden fishing structures	-	-	Häkälä 2014 (survey)	-	1000029310	
KEMINMAA KERONMÄKI	lake shore	Early Iron Age	waterfront of a settlement site	wooden ski	quartz, cast of a bronze	drainage ditch section	Tallgren 1907, Koivunen 1989	336 (PPM), 25433, 25434	241010002	Huurre 1983
KESÄLAHTI (KITEE) HIIDENNIEMI	lake shore	(Sub-)Neolithic-Late Iron Age	fishery at a marshy bay in front of a settlement site, stationary wooden structures	wooden stakes	-	12 m^2	Vanhatalo 2005, Pesonen 2006	34843, 35444, 36423	1000003341	Forsberg *et al.* 2009
KEURUU SUOJOKI	river estuary	Historical (CE 14th-16th centuries)	storage of timber in peat	boat remains, oars, paddles, sledge runners, skis, piles, net floats, birch bark artefacts etc.	whetstone	ca. 1110 m^2 + test pits	Pälsi & Hirsjärvi 1935, Hirsjärvi & Sarasmo 1952, Taavitsainen 1989-1991	7489, 7791, 9421 (NM Ethn.col.), small collections at Häme museum and museum of Central Finland, 32692	249040021	e.g. Pälsi 1934, Hirsjärvi 1953, Taavitsainen *et al.* 2007
KONNEVESI SOSKALANSALMI	lake	Historical	fishery, shallow water	stationary wooden fishing structures	-	-	Kumpulainen 2003 (inspection)	-	1000001052	
KRISTIINANKAUPUNKI LAPPFJÄRD-MÖSSÄSEN/KORNBÄCKEN	coastal	Late (Sub-)Neolithic (Corded ware)	settlement site, coastal paludification, strong isostatic rebound	-	quartz	4-5 m^2	several NBA inspecions and survey; Laulumaa 2006 (excavations)	28980, 28982, 29394, 29532, 30386, 30928, 31877, 32461, 33407, 33676, 36114, 36523	409010045	
KUHMO LAPINJOKI	lake / river	Historical?	fishery, shallow water	stationary wooden fishing structures	-	-	Suominen 2010 (inspection)	-	1000016487	
KUHMO TEERIPURO	lake / stream	undefined	fishery, shallow water	stationary wooden fishing structures	-	-	Sarvas 1971 (survey)	-	290010014	
KUUSAMO JUUMA YLI-JUUMAJÄRVI	lake	Stone Age?	fishery, shallow water	stationary wooden fishing structures, settlemetn site by the lakeshore	-	-	Erä-Esko 1971, 1975 (survey), Sarkkinen 1999 (survey	18418 (from settlement site)	305010054	Okkonen & Heikkilä 2011
LAUKAA HARTIKKA	lake shore	(Sub-)Neolithic	settlement site, lake terrestrialization	-	ceramics	ca. 6 m^2 (Vanhatalo 1993)	Several NBA excavations in 1987-1993	23412, 23452, 23584, 23591, 23697, 24461, 25346, 25807, 26604, 27183, 27897	410010020	Miettinen 1992
LAUKAA KYNSIVESI MÄNTYSAARI	lake	Historical	fishery, shallow water	stationary wooden fishing structures	-	-	Kumpulainen 2003 (inspection)	-	1000001055	
LOHJA PERÄAHDE-HOTOPOHJA	lake	Stone Age?	dryland settlement site and paludified fishery	stationary wooden fishing structures, net sinkers with birch bark bindings, boat rib	quartz and other lithics	-	Katiskoski 1997 (survey)	30568	223010012	
MÄNTTÄ-VILPPULA RUOHOSALMI	lake	Historical?	fishery, shallow water	stationary wooden fishing structures	-	-	Adel 1999 (survey), Jussila 2002 (survey)	-	1000001988	

APPENDIX I: LIST OF WETLAND ARCHAEOLOGICAL SITES IN FINLAND

NAME	HABITAT	DATING	DESCRIPTION	ORGANICS	OTHER MATERIALS	WETLAND EXCAVATION AREA	FIELDWORK	KM	SITE ID (NBA'S REGISTER)	REFERENCES
NIVALA SALMENSUU	river estuary, lake	undefined, presumably partly prehistoric	fishery, lake terrestrialization	stationary wooden fishing structures	quarz	drainage ditch sections	Konttun 1937, Koivisto 2005 (survey)	10863, 35461	535010001	
ORIMATTILA PENNALA ALESTALO	riverbank or lake shore	(Sub-)Neolithic	settlement site, wooden structures, lake terrestrialization	sledge runner, fish trap, macrofossils	ceramics, quartz, fire-cracked stones	ca. 53 m^2	Luho 1949, Meinander 1959, Takala & Lahelma 2001	12057, 14340, 14501, 14697, 18129, 19730, 19731, 31224, 32677	560010010	Itkonen 1949, Valovirta 1949, Aalto 1981, Vuorela 1981, Sirviö & Kajander 2003, Vanhanen & Pesonen 2016
OULU OULUJOKI TURKANSAARI	river	Historical	fishery, underwater	stationary wooden fishing structures	-	-	-	-	2670	
OUTOKUMPU SÄTÖS	lake shore	(Sub-)Neolithic	settlement site, peat accumulation	-	ceramics	ca. 5 m^2 (Karjalainen 1992)	Meinander 1952, 1965-1966, 1970, Karjalainen 1992-1994, 1998	12720, 12905, 13060, 15164, 16314, 16488, 16536, 17283, 17284, 18225, 20012, 21086, 25226, 27704, 28153, 28482, 28553, 30449, 30892, 33396, 33522	309010002	Karjalainen 1996, Räihälä 1996, Saastamoinen 1996, Mökkönen 2011
PIELAVESI MEIJERINKANGAS	island, lake	(Sub-)Neolithic-Early Metal Age	settlement site, peat accumulation	-	-	4 m^2	Kankkunen 1990-1991	19103, 19566, 26088, 26617	595010006	
POLVIJÄRVI TYTTÖLAMPI	lake	undefined	fishery, shallow water	stationary wooden fishing structures	-	-	Seppälä 2008 (inspection)	-	1000012387	
PORI TUORSNIEMI LÄHDEPURO	coastal, river estuary	Late Bronze Age	fishery site, fish nets, alluvial? Layers, strong isostatic rebound	net floats, net remains, seal and fish remains	net sinkers	36 m^2	Luho 1951, Kauhanen 1967, a number of surveys and inspection	12715, 12915	609010021	Luho 1954
PUDASJÄRVI TUULISALMI	lake	Historical	fishery, shallow water	stationary wooden fishing structures	contains also stone structures	-	Sarkkinen 2006 (inspection), Häkälä 2011 (survey)	-	1000006069	
PYHÄJÄRVI PELTOLA	lake	undefined/Stone Age?	dryland settlement site and fishery, shallow water and peatland	stationary wooden fishing structures	-	-	Sarkkinen 1995 (survey)	-	1000000310	
RAUTALAMPI HÄMEENNIEMI	lake shore	(Sub-)Neolithic-Iron Age	settlement site, water level fluctuation, lake terrestrialization	-	ceramics (Iron Age)	a few sq. meters	Vanhatalo 2001, 2009	29357, 29829, 33657, 34058, 34583	686010018	
RIIHIMÄKI SILMÄKENEVA E	lake shore	(Sub-)Neolithic (possibly earlier and later horizons)	settlement site, wooden structures set at the waterfront, water level fluctuation,lake terrestrialization	birch bark layer, wooden constructions	quartz, ceramics, amber	ca. 40 m^2 + corings	Matiskainen et al. 2000, Bilund 2002, a number of surveys	30293, 32410, 33458	694010008	Matiskainen & Ruohonen 2004
RIIHIMÄKI SILMÄKENEVAN SAARI 1	island, lake	Late Mesolithic-(Sub-)Neolithic	settlement site, wooden structures set at the waterfront, water level fluctuation, lake terrestrialization	wood chip layers	quartz	ca. 12 m^2 + corings	Matiskainen et al. 2001, a number of surveys and inspection	30294, 32411, 32684	694010009	Matiskainen & Ruohonen 2004
RIIHIMÄKI SILMÄKENEVAN SAARI 2	island, lake	Late Mesolithic	settlement site, water level fluctuation, lake terrestrialization	-	quartz	4 m^2 + corings	Matiskainen & Jussila 1998, a number of surveys and inspection	30295, 30885, 32412	694010010	Matiskainen & Ruohonen 2004
RIIHIMÄKI SILMÄKENEVAN SAARI 3	island, lake	Late Mesolithic-Early Metal Age	settlement site, water level fluctuation, lake terrestrialization	wooden constructions	-	ca. 20 m^2	Pesonen 2003, Kehusmaa 2004, a number of surveys and inspection	30296, 33454, 34031	694010011	Matiskainen & Ruohonen 2004
RIIHIMÄKI SILMÄKENEVAN SAARI 4	island, lake	Mesolithic	settlement site, water level fluctuation, lake terrestrialization	-	quartz	ca. 20 m^2 + corings	Matiskainen et al. 2001, a number of surveys and inspection	30297, 32680	694010012	Matiskainen & Ruohonen 2004
RIIHIMÄKI SILMÄKENEVAN SAARI 5	island, lake	(Sub-)Neolithic	settlement site, water level fluctuation, lake terrestrialization	-	quartz	ca. 5 m^2 + corings	Matiskainen et al. 2001, a number of surveys and inspection	30298, 32681	694010013	Matiskainen & Ruohonen 2004
RIIHIMÄKI SINIVUOKKONIEMI	lake shore	Late Mesolithic-Late (Sub-)Neolithic	settlement site, wooden structures set at the waterfront, water level fluctuation, lake terrestrialization	net floats, wooden piles, wooden artefact, macrofossils	ceramics, cooking stones	ca. 81 m^2 + corings	Matiskainen et al. 1998-2001, Ruohonen 2002, a number surveys	30292, 30884, 31510, 32409, 32679, 33457	694010007	Matiskainen & Zhilin 2003, Matiskainen & Ruohonen 2004
ROVANIEMI PITKÄLOUKON PÄÄ	lake	undefined	fishery, shallow water	stationary wooden fishing structures	-	-	Sarkkinen 2002 (survey), Karjalainen 2011 (survey)	-	1000024395	Sarkkinen 2003
ROVANIEMI YLIKÄRRYLÄ KÄRRÄNIEMI	island, river estuary basin	(Sub-)Neolithic	settlement site, wooden structures set at the waterfront, strong isostatic rebound, estuary	-	ceramics, lithics, amber, burnt bone	*mostly dryland excavations*	Sarkamo 1960, Siiriäinen 1961, a number of inspections	14754, 14927	698010074	Siiriäinen 1986, 2004
RÄÄKKYLÄ MAJASALMI	lake	Historical?	fishery, shallow water	stationary wooden fishing structures	-	-	Pesonen & Majoinen 2003 (inspection)	-	1000004153	
RÄÄKKYLÄ SIIMESLAHTI	lake	Historical?	fishery, shallow water	stationary wooden fishing structures	-	-	Pesonen & Majoinen 2003 (inspection)	-	1000004152	
RÄÄKKYLÄ VÄNSKÄNSALMI	lake	Historical?	fishery, shallow water	stationary wooden fishing structures	-	-	Pesonen & Majoinen 2003 (inspection)	-	1000004154	
SAARIJÄRVI KOSKENLAHTI	lake	Stone Age?	dryland settlement site and fishery, peatland	stationary wooden fishing structures, net float	-	-	Pälsi 1928 (inspection), Huurre 1969 (survey), Schulz 1993 (survey), Sepänmaa 2001 (inspection)	18085, 2029	729010039	

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NAME	HABITAT	DATING	DESCRIPTION	ORGANICS	OTHER MATERIALS	WETLAND EXCAVATION AREA	FIELDWORK	KM	SITE ID (NBA'S REGISTER)	REFERENCES
SULKAVA PISAMALAHDEN LINNAVUORI	lake	Multiperiodic?	hillfort and fishery in shallow water	stationary wooden fishing structures	-	-	Appelgren, Äyräpää 1927 (inspection), Pälsi 1934 (mapping), Hirviluoto 1960 (inspection), Huurre 1974 (inspection), Bergström 1983 (inspection), Laulumaa 2010 (survey)	-	768010009	e.g., Purhonen 2001
SUOMUSSALMI ANTINJÄRVENSALMI	lake	Historical	fishery, shallow water	stationary wooden fishing structures	-	-	Suominen 2011 (inspection)	-	1000019080	
TAIVALKOSKI LATVAJOEN SUU	lake, river estuary	Prehistoric	fishery, shallow water	stationary wooden fishing structures	-	-	Sarkkinen 1999 (inspection)	-	832010071	
UTAJÄRVI SÄRKIJÄRVI	lake	undefined	fishery, shallow water	stationary wooden fishing structures	-	-	Koivunen 2000? (mapping)		-	Pistokoski & Koivunen 2001
VESANTO PALVANIEMI	lake	undefined	cairns at dryland, fishery in shallow water	stationary wooden fishing structures	-	-	Soininen 1991 (survey)	-	921010011	
VIROLAHTI SUURI RANTATIE UISTESUO	bog	Historical (CE 14th-17th centuries)	timber footbridge	timber structures	-	ca. 155 m2	Mikkola 2014	40360	1000024349	
VÄHÄKYRÖ (VAASA) AINMAA-PALOLAKSO	river, estuary	Iron Age?	cairns and footbridge made of timber and stones	timber and stone structures	burial cairn materials, finds suggesting iron age settlement site	mostly dryland excavations, the footbridge was uncovered and photographed in the 1920's.	Vuorela 1927 and 1937, Sarasmo 1933 and 1938, Siiriäinen 1966, Laulumaa, Koivisto & Nyholm 2012	10677, 10850	942010002	Meinander 1950, Ahtela 1981, Taittonen 1999
VÖYRI KÄLDAMÄKI	coastal, narrow bay	Iron Age	water cemetery, strong isostatic rebound, paludification	human and animal remains, fish trap, axe shaft, wooden piles	bronze rod	ca. 90 m^2	Äyräpää 1936, Meinander & Nordman 1937	10202, 10241, 10438, 17276	944010013	Meinander 1950, Seger 1982, Wessman 2009
YLI-II (OULU) KIERIKKISAARI	island, river estuary	(Sub-)Neolithic	settlement/procurement site, pile constructions, strong isostatic rebound, power plant	-	ceramics, lithics, amber, burnt bones	*mostly dryland excavations*	Sarvas et al. 1961-64, Viljanmaa & Annala 2005	15241, 15663, 16139, 16140, 16141, 16554, 35207	972010009	Siiriäinen 1967, Koivunen 2002
YLI-II (OULU) PURKAJASUO	coastal, river estuary	(Sub-)Neolithic	fishery, alluvial sediments, strong isostatic rebound, paludification	stationary wooden fishing structures, wooden artefacts	amber, quartz	ca. 600 m^2 + over 200 test pits of varying sizes	Schulz 1996-2000, Koivunen & Viljanmaa 2004	14396, 15137, 19679, 29764, 30603, 31019, 31836	972010012	Nuñez 1995, Schulz 1998b, Koivunen 2006, Koivisto 2012, Koivisto & Nurminen 2015
ÄHTÄRI JÄKÄLÄNLAHTI	lake	Historical?	fishery, shallow water	stationary wooden fishing structures	-	-	Pesonen 2014 (survey)	-	1000025696	
ÄÄNEKOSKI LEKOLAHTI	lake	Historical?	fishery, shallow water	stationary wooden fishing structures	-	-	Kumpulainen 2003 (inspection)	-	1000001054	

APPENDIX II

List of Purkajasuo wood finds

LEGEND TO APPENDIX II: List of Purkajasuo wood finds

LAYER

T	peat
H	alluvial sand
O	organic layer
SH	muddy sand
S	Litorina clay
M	moraine

WOOD WORKING STATE

0	natural, branches
1	trimmed, bark
2	trimmed, peeled
10	partly worked
20	completely worked

POSITION

1	horizontal
2–4	22.5–45–67.5 degrees
5	vertical

PRESERVATION CONDITION

1–	hard
–5	decomposed
6	charred

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 1001	1183,30	1976,98	50.28	H	NATURAL PIECE OF WOOD	2	1	20	190	68	60	3	branch?	29764		Schulz 1996
P 1002	1183,25	1976,77	50.21	H	NATURAL PIECE OF WOOD	2	1	80	340	95	92	4				Schulz 1996
P 1003	1190,15	1976,95	50.19	H/SH	WOODEN ARTEFACT	20	1	92	128	10	5	2				Schulz 1996
P 1004	1174,65	1954,30	50.07	O	LATH	20	1	90	620	22	11	1				Schulz 1996
P 1005	1178,92	1953,84	50.19	SH	LATH	20	1	360	1136	21	14	2	broken in seven pieces			Schulz 1996
P 1006	1179,38	1952,84	50.18	SH	LATH	20	1	375	82	22	8	2	broken in two pieces			Schulz 1996
P 1007	1179,29	1952,95	50.18	SH	WORKED WOOD	10	1	340	120	29	23	1	artefact?			Schulz 1996
P 1008	1178,95	1953,44	50.19	SH	WOODEN ARTEFACT	20	1	363	381	18	17	2	broken in four pieces			Schulz 1996
P 1009	1179,25	1953,81	50.24	SH	WOODEN ARTEFACT	20	1	38	343	14	12	1				Schulz 1996
P 1010	1179,26	1953,84	50.25	SH	WORKED WOOD	10	1	30	67	32	16	1	partly worked?			Schulz 1996
P 1011	1179,51	1953,89	50.17	SH	LATH	10	1	122	72	21	6	3	woodchips included			Schulz 1996
P 1012	1178,83	1953,81	50.13	SH	WORKED WOOD	10	1	67	897	56	51	2	one end cut			Schulz 1996
P 1013	1178,49	1953,66	50.13	SH	NATURAL PIECE OF WOOD	2	1	72	752	56	47	2	pointed pile?			Schulz 1996
P 1014	1978,91	1953,85	50.20	SH	LATH	10	1	30	210	21	11	3	some surface remaining			Schulz 1996
P 1015	1179,00	1954,00	50.30	H/SH	NATURAL PIECE OF WOOD	2	1	20	728	27	27	3	broken in ditch digging			Schulz 1996
P 1016	1179,00	1953,00	50.30	H/SH	WORKED WOOD	10	1	37	628	46	46	2	broken in ditch digging, toolmark			Schulz 1996
P 1017	1178,87	1954,12	50.14	SH	NATURAL PIECE OF WOOD	2	1	57	1217	34	29	1	broken into trench section			Schulz 1996
P 1018	1178,87	1954,05	50.13	SH	NATURAL PIECE OF WOOD	2	1	54	539	53	50	2	one end rounded?			Schulz 1996
P 1019	1179,22	1954,10	50.20	SH	NATURAL PIECE OF WOOD	2	1	60	229	22	17	1	branch			Schulz 1996
P 1020	1179,14	1954,09	50.18	SH	WOODEN ARTEFACT	20	1	50	127	11	8	2				Schulz 1996
P 1021	1179,65	1953,98	50.20	SH	WOODEN ARTEFACT	20	1	160	181	26	19	1	small broken pieces			Schulz 1996
P 1022	1179,00	2001,00	x	H/SH	LATH	20	1	x	73	19	10	1	water pit, two fragments			Schulz 1996
P 1023	1179,00	2001,00	x	SH/S	LATH	20	1	x	83	17	14	1	water pit, fragments			Schulz 1996
P 1024	1179,00	2001,00	x	SH/S	WOODEN ARTEFACT	20	1	x	119	16	15	2	water pit, fragments			Schulz 1996
P 1025	1179,00	2001,00	x	SH/S	WOODEN ARTEFACT	20	1	x	90	16	13	2	water pit, curved piece			Schulz 1996
P 1026	1179,00	2001,00	x	H/SH	LATH	20	1	x	280	18	18	2	water pit, five fragments			Schulz 1996
P 1027	1160,10	2130,32	51.17	H/SH	LATH	20	1	5	217	27	12	2	test pit, two fragments			Schulz 1996
P 1028	1160,80	2120,30	51.12	H/SH	WORKED WOOD	10	1	78	167	32	21	3	test pit, worked wood?			Schulz 1996
P 1029	1160,90	2120,05	51.16	H/SH	LATH	20	1	77	250	19	12	3	test pit, two fragments, roots inside			Schulz 1996
P 1030	1209,46	1998,90	50.29	H	LATH	20	1	96	65	25	13	2	end piece			Schulz 1996
P 1031	1209,49	1998,85	50.33	H	LATH	20	1	395	102	23	14	2	end piece			Schulz 1996
P 1032	1209,67	1998,54	50.39	H	LATH	20	1	265	150	15	7	3				Schulz 1996
P 1033	1179,62	1953,69	50.19	SH	WOODEN ARTEFACT	20	1	58	393	22	11	1	barb-shaped point			Schulz 1996
P 1034	1178,50	1953,53	50.12	SH	LATH	20	1	65	882	16	9	1	one end rounded			Schulz 1996
P 1035	1178,99	1953,88	50.13	SH	LATH	20	1	95	807	15	13	1			207	Schulz 1996
P 1036	1178,88	1954,00	50.13	SH	WOODEN ARTEFACT	20	1	62	273	22	14	2	barb-shaped point			Schulz 1996
P 1037	1178,30	1953,70	50.13	SH	LATH	20	1	73	559	15	15	1	broken in six pieces			Schulz 1996
P 1038	1178,60	1954,35	50.14	SH	NATURAL PIECE OF WOOD	2	1	376	268	41	34	4	presumably not in its original location			Schulz 1996
P 1039	1179,12	1954,51	50.16	SH	WOODEN ARTEFACT	20	1	135	146	19	17	2	broken in two pieces			Schulz 1996
P 1040	1179,94	1954,56	50.17	SH	LATH	10	1	167	76	19	11	1	end fragment of a lath?			Schulz 1996
P 1041	1205,00	1996,95	50.28	H	LATH	20	1	98	215	22	7	3	five fragments			Schulz 1996
P 1042	1206,08	1994,55	50.23	H/SH	LATH SCREEN SECTION	20	1	67	1604	1085	46	1	30 laths and three birch bark bindings supported with a strong lath underneath, exhibit at Kierikki		208	Schulz 1996
P 1043	1200,02	1995,90	50.22	H/SH	WOODEN ARTEFACT	20	1	3	749	114	29	1	perforated plank-shaped object, slot c. 50x30 mm in size, the other slot broken, perforations in opposite angles		209	Schulz 1996
P 1044	1159,40	2150,65	51.35	SH	WORKED WOOD	10	1	90	1340	13	12	2	carved ends, one end narrowed			Schulz 1996
P 1045	1159,20	2150,35	51.33	SH	NATURAL PIECE OF WOOD	2	1	90	607	19	19	2	branch, fork width c. 96 mm			Schulz 1996
P 1046	1159,65	2150,40	51.18	SH	LATH	20	1	391	325	17	8	2	binding groove in one end			Schulz 1996
P 1047	1159,55	2149,50	51.20	SH	LATH	20	1	95	770	21	12	2	tapering ends			Schulz 1996
P 1048	1159,10	2150,20	51.19	SH	LATH	20	1	95	765	18	16	2	rounded end			Schulz 1996
P 1049	1159,50	2149,50	51.00	SH	WOODEN ARTEFACT	20	1	88	620	16	10	2	longitudinal groove			Schulz 1996
P 1050	1159,10	2150.30	51.14	SH	LATH	20	1	90	670	23	6	2				Schulz 1996
P 1051	1159,45	2150,62	51.06	SH	LATH	20	1	38	185	18	10	2				Schulz 1996
P 1052	1160,45	2139,10	51.41	H/SH	LATH	20	1	80	34	13	4	3	one end rounded, does not match with the list of concerved wood finds			Schulz 1996
P 1053	1160,70	2139,15	51.41	H/SH	NATURAL PIECE OF WOOD	10	1	0	57	18	12	3	number does not match, a pile at Kierikki, length c. 1250 mm			Schulz 1996
P 1054	1160,65	2139,25	51.40	H/SH	NATURAL PIECE OF WOOD	1	1	30	103	8	9	2	branch			Schulz 1996
P 1055	1160,60	2139,35	51.41	H/SH	LATH	10	1	380	120	25	8	2			210	Schulz 1996
P 1056	1160,60	2139,40	51.41	H/SH	LATH	10	1	15	60	16	8	3				Schulz 1996
P 1057	1160,65	2139,43	51.40	H/SH	NATURAL PIECE OF WOOD	10	1	15	110	27	8	3				Schulz 1996
P 1058	1159,48	2150,55	51.00	SH	NATURAL PIECE OF WOOD	2	1	12	74	41	21	3	one end possibly worked?			Schulz 1996
P 1059	1160,45	2138,60	51.37	SH	LATH	20	1	340	85	18	13	2				Schulz 1996
P 1060	1160,87	2138,65	51.23	SH	NATURAL PIECE OF WOOD	2	1	340	285	16	14	3	branch			Schulz 1996
P 1061	1160,00	2139,52	51.20	SH	LATH	20	1	310	106	26	9	2				Schulz 1996
P 1062	1160,13	2139,55	51.13	SH	LATH	20	1	40	102	19	10	2	one end worked			Schulz 1996
P 1063	1149.95	2119,60	51.26	SH	LATH	10	1	275	998	16	16	3	one end worked, in eight pieces			Schulz 1996
P 1064	1151.20	2119,30	51.10	SH	LATH	10	1	15	790	15	17	3	in six pieces			Schulz 1996
P 1065	1150,65	2119,40	51.09	SH	LATH	10	1	15	283	15	16	2	one end worked			Schulz 1996
P 1066	1165,90	2090,65	50.98	SH	NATURAL PIECE OF WOOD	1	1	82	85	40	5	2	tree bark included			Schulz 1996
P 1067	1165,90	2090,85	50.98	SH	LATH	20	1	91	130	22	6	2				Schulz 1996
P 1068	1165,30	2090,62	50.97	SH	LATH	20	1	91	170	19	14	2	in 12 pieces, one end worked			Schulz 1996
P 1069	1165,50	2090,53	50.97	SH	WORKED WOOD	10	1	95	40	4	4	2	in two pieces, one end worked			Schulz 1996
P 1070	1165,74	2090,97	50.96	SH	LATH	10	1	0	42	13	8	3	worked end of a lath?			Schulz 1996
P 1071	1165,65	2090,13	51.01	SH	PILE	10	1	65	1032	60	60	2	possibly worked end, very poor preservation		211	Schulz 1996
P 1072	1150.88	2119,35	51.10	SH	NATURAL PIECE OF WOOD	2	1	27	425	23	15	3				Schulz 1996
P 1073	1151.05	2120,95	51.11	SH	WORKED WOOD	10	1	20	670	103	102	3	wedge-shaped end, timber fragment? exhibit at Kierikki		212	Schulz 1996
P 1074	1150.88	2119,15	51.26	SH	NATURAL PIECE OF WOOD	2	1	330	107	24	19	3				Schulz 1996
P 1075	1208,47	1995,73	50.30	H/SH	NATURAL PIECE OF WOOD	2	1	10								Schulz 1996
P 1076	1208,38	1995,92	50.30	H/SH	NATURAL PIECE OF WOOD	2	1	130								Schulz 1996
P 1077	1207,42	1197,19	50.38	H/SH	LATH	20	1	70								Schulz 1996
P 1078	1206,21	1197,99	50.29	H/SH	NATURAL PIECE OF WOOD	2	1	93								Schulz 1996
P 1079	1204,40	1198,21	50.27	H/SH	LATH	20	1	69								Schulz 1996
P 1080	1203,68	1197,42	50.25	H/SH	NATURAL PIECE OF WOOD	2	1	397	580	129	45	4				Schulz 1996
P 1081	1203,91	1198,04	50.27	H/SH	LATH	20	1	70								Schulz 1996
P 1082	1203,05	1995,00	50.30	H/SH	NATURAL PIECE OF WOOD	2	1	69	1350	49	49	3	continues to trench section			Schulz 1996
P 1083	1202,15	1995,10	50.27	H/SH	WORKED WOOD	10	1	44	1210	70	70	3	broken end			Schulz 1996
P 1084	1201,45	1997,25	50.25	H/SH	WOODEN ARTEFACT	20	1	366				2				Schulz 1996
P 1085	1201,42	1997,27	50.25	H/SH	WOODEN ARTEFACT	20	1	364				2				Schulz 1996
P 1086	1201,38	1996,17	50.24	H/SH	WOODEN ARTEFACT	20	1	365	953	118	60	2	perforated plank with two slots, c. 80x70 mm, other slot broken, one perforation adjacent to the wedge-shaped end, poorly preserved, exhibit at Kierikki		213	Schulz 1996
P 1087	1208,77	1998,12	50.28	SH	LATH	10	1	347	92	11	16	4	fragmented lath?			Schulz 1996
P 1088	1208,35	1998,35	50.27	SH	WOODEN ARTEFACT	20	1	95	182	10	6	2	narrow lath			Schulz 1996
P 1089	1208,38	1997,37	50.24	SH	WORKED WOOD	10	1	8	97	7	6	1	rounded end		214	Schulz 1996
P 1090	1208,18	1998,40	50.28	SH	LATH	10	1	70	92	15	7	3	fragment			Schulz 1996
P 1091	1207,60	1997,47	50.23	SH	LATH	10	1	81	144	16	11	2	two fragments			Schulz 1996
P 1092	1207,35	1998,54	50.25	SH	LATH	20	1	80	771	21	13	1			215	Schulz 1996
P 1093	1207,32	1998,20	50.25	SH	LATH	20	1	166	130	16	8	1	end piece, binding depression			Schulz 1996
P 1094	1207,20	1998,25	50.25	SH	LATH	20	1	395	195	25	14	1	end piece			Schulz 1996
P 1095	1207,09	1998,61	50.25	SH	LATH	20	1	57	60	20	8	2				Schulz 1996
P 1096	1206,87	1998,54	50.25	SH	NATURAL PIECE OF WOOD	10	1	30	282	9	8	2				Schulz 1996
P 1097	1183,60	1956,42	50.26	H/SH	LATH	20	1	44	390	19	9	3	in two fragments, cut from the trench section, softwood			Schulz 1996
P 1098	1182,57	1953,56	50.34	H/SH	PILE	10	1	113	2440	80	58	4	several fragments, cut from the trench section			Schulz 1996
P 1099	1181,00	1955,60	50.28	H/SH	LATH	20	1	27	181	15	8	2	softwood			Schulz 1996
P 1100	1180,85	1955,24	50.28	H/SH	WORKED WOOD	10	1	75	226	77	15,5	2	one end hewed			Schulz 1996
P 1101	1180,60	1955,32	50.25	H/SH	NATURAL PIECE OF WOOD	2	1	46	493	173	135	2	roots			Schulz 1996
P 1102	1180,05	1955,04	50.29	H/SH	PILE	20	1	66	1628	67	67	4	one end peg-shaped, the other pointed			Schulz 1996
P 1103	1180,67	1955,49	50.32	H/SH	LATH	20	1	67	1043	24	17	2			216	Schulz 1996
P 1104	1180,62	1955,49	50.32	H/SH	PILE	20	1	71	1273	75	75	2	complete, pencil-shaped point, end cut straight		217	Schulz 1996
P 1105	1180,56	1955,50	50.31	H/SH	NATURAL PIECE OF WOOD	2	1	72	780	16	16	4	branch			Schulz 1996
P 1106	1180,44	1955,46	50.32	H/SH	PILE	10	1	74	1725	80	65	3	complete, slightly chisel-shaped point, cross-section rounded, end rounded		218	Schulz 1996
P 1107	1181,05	1956,22	50.29	H/SH	PILE	20	1	65	1032	70	50	3	point triangularry carved, tapering ends		219	Schulz 1996
P 1108	1181,18	1956,40	50.32	H/SH	PILE	20	1	64	425	85	58	3	hardwood			Schulz 1996
P 1109	1181,13	1956,53	50.31	H/SH	NATURAL PIECE OF WOOD	10	1	47	608	78	49	4	hardwood			Schulz 1996
P 1110	1180,07	1955,10	50.28	H/SH	LATH	20	1	81	690	24	10	3	softwood		220	Schulz 1996
P 1111	1180,54	1955,51	50.27	H/SH	LATH	20	1	68	316	17	7	2	softwood			Schulz 1996
P 1112	1181,01	1955,82	50.25	H/SH	LATH	20	1	77	218	21	10	2	softwood			Schulz 1996
P 1113	1181,00	1956,00	50.25	H/SH	LATHS	20	1	x	x	x	x	x				Schulz 1996
P 1114	1180,96	1956,08	50.28	H/SH	LATH	20	1	67	783	18	14	3	in two pieces, softwood			Schulz 1996
P 1115	1181,54	1956,53	50.30	H/SH	NATURAL PIECE OF WOOD	2	1	76	216	37	8	2	softwood			Schulz 1996
P 1116	1181,23	1956,29	50.30	H/SH	LATH	20	1	63	175	12	11	2	softwood			Schulz 1996
P 1117	1181,02	1956,07	50.28	H/SH	LATH	20	1	70	398	22	8	2	softwood		221	Schulz 1996
P 1118	1181,00	1956,13	50.28	H/SH	LATH	20	1	69	281	18	9	2	softwood			Schulz 1996
P 1119	1181,15	1956,44	50.27	H/SH	LATH	20	1	56	224	16	12	2	in two pieces, softwood			Schulz 1996

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 1120	1181,25	1956,49	50.32	H/SH	LATH	20	1	61	241	18	12	2	softwood			Schulz 1996
P 1121	1181,12	1956,44	50.28	H/SH	LATH	20	1	64	257	14	9	2	softwood		222	Schulz 1996
P 1122	1181,00	1956,00	50.25	H/SH	LATHS	x	x	x	x	x	x	x				Schulz 1996
P 1123	1181,60	1956,69	50.29	H/SH	NATURAL PIECE OF WOOD	1	1	20	215	119	31	1	tree bark, hardwood			Schulz 1996
P 1124	1181,28	1956,76	50.30	H/SH	NATURAL PIECE OF WOOD	2	1	53	380	32	32	2				Schulz 1996
P 1125	1180,31	1955,84	50.25	H/SH	LATH	20	1	336	478	18	13	2	cut from the trench section, softwood		223	Schulz 1996
P 1126	1181,86	1956,68	50.30	H/SH	NATURAL PIECE OF WOOD	2	1	81	598	27	26	2	cut from the trench section			Schulz 1996
P 1127	1179,00	1955,00	50.17	SH	STAKE	10	1	67	1740	27	27	1	pencil-shaped point (5 facets), broken end, softwood, exhibit at Kierikki		224	Schulz 1996
P 1128	1182,00	1956,89	50.27	H/SH	NATURAL PIECE OF WOOD	1	1	131	172	91	8	1	tree bark hardwood			Schulz 1996
P 1129	1189,00	1956,54	50.34	H/SH	PILE	20	1	55	?	79	69	4	both ends in trench sections			Schulz 1996
P 1130	1180,36	1953,66	50.27	H/SH	NATURAL PIECE OF WOOD	1	1	78	112	52	7	3	tree bark, in two pieces			Schulz 1996
P 1131	1179,95	1954,02	50.28	H/SH	LATH	20	1	50	266	18	8	3	in five pieces, softwood			Schulz 1996
P 1132	1180,13	1953,88	50.28	H/SH	LATH	20	1	28	168	13	12	2	end piece, in two pieces, softwood			Schulz 1996
P 1133	1181,71	1956,81	50.26	H/SH	LATH	20	1	40	188	17	9	2	softwood			Schulz 1996
P 1134	1181,22	1956,75	50.31	H/SH	LATH	20	1	34	246	16	6	2	softwood			Schulz 1996
P 1135	1181,01	1956,62	50.30	H/SH	LATH	20	1	55	385	19	11	2	cut from the trench section, softwood			Schulz 1996
P 1136	1181,15	1956,90	50.28	H/SH	LATH	20	1	53	299	11	9	2	end piece, softwood			Schulz 1996
P 1137	1181,01	1956,69	50.30	H/SH	NATURAL PIECE OF WOOD	2	1	57	661	28	26	2	cut from the trench section			Schulz 1996
P 1138	1181,16	1954,00	50.30	H/SH	LATH	20	1	32	142	16	13	2	softwood			Schulz 1996
P 1139	1181,12	1956,82	50.31	H/SH	PILE	10	1	45	931	43	38	4	cut from the trench section			Schulz 1996
P 1140	1150.90	2119,45	51.14	SH	NATURAL PIECE OF WOOD	2	1	70	609	70	60	3				Schulz 1996
P 1141	1150.03	2120,57	51.13	SH	LATH	20	1	52	447	10	15	2				Schulz 1996
P 1142	1150.02	2120,68	51.10	SH	NATURAL PIECE OF WOOD	2	1	0	477	48	48	3	separate branch included			Schulz 1996
P 1143	1150.28	2090,66	51.07	SH	LATH	20	1	27	125	14	3	3				Schulz 1996
P 1144	1150.13	2090,80	51.07	SH	LATH	20	1	10	120	11	4	3	split wood in five fragments			Schulz 1996
P 1145	1150.27	2090,60	51.07	SH	LATH	20	1	93	210	8	4	3	split wood in six fragments			Schulz 1996
P 1146	1165,03	2090,45	51.03	SH	WOODEN ARTEFACT	20	1	15	105	21	9	2	split wood			Schulz 1996
P 1147	1165,33	2090,05	50.97	SH	LATH	20	1	155	174	19	10	2	in two pieces			Schulz 1996
P 1148	1165,13	2089,92	50.97	SH	LATH	20	1	70	240	15	7	3	in two pieces, number does not match with the conserved artefacts, pile exhibit at Kierikki with the same number, excavator damages			Schulz 1996
P 1149	1174,39	2080,98	50.97	SH	LATH	20	1	28	152	14	10	2	in two pieces			Schulz 1996
P 1150	1174,26	2080,86	50.91	SH	LATH	20	1	10	91	19	13	3				Schulz 1996
P 1151	1174,60	2080,20	50.89	SH	LATH	20	1	80	103	12	7	2	in two pieces			Schulz 1996
P 1152	1160,90	2138,90	51.13	SH	LATH	20	1	0	950	17	14	2	discarded in test pit			Schulz 1996
P 1153	1160,90	2139,40	51.12	SH	LATH	20	1	97	880	18	16	2	discarded in test pit			Schulz 1996
P 1154	1160,23	2139,57	51.12	SH	LATH	20	1	387	470	14	9	3	discarded in test pit, large stone above (see excavation map)			Schulz 1996
P 1155	1192,42	1996,83	50.29	SH	LATH	20	1	256	1637	30	12	3	broken in two pieces			Schulz 1996
P 1156	1174,50	2079,95	50.80	SH	WOODEN ARTEFACT	20	1	55	550	55	25	4	branch, poor preservation			Schulz 1996
P 1157	1174,78	2080,15	50.76	SH	LATH	20	1	0	158	20	8	3				Schulz 1996
P 1158	1207,64	1995,78	50.28	SH	LATH	20	1	18	219	16	7	4			225	Schulz 1996
P 1159	1207,87	1995,23	50.25	SH	NATURAL PIECE OF WOOD	1	1	30	52	22	5	4	pine bark			Schulz 1996
P 1160	1207,08	1996,61	50.25	SH	NATURAL PIECE OF WOOD	10	1	372	64	11	5	5	lath fragment?			Schulz 1996
P 1161	1206,40	1997,89	50.23	SH	NATURAL PIECE OF WOOD	10	1	88	494	53	48	3			226	Schulz 1996
P 1162	1203,35	1998,45	50.26	SH	LATH	20	1	51	374	14	11	4	in five pieces			Schulz 1996
P 1163	1202,54	1997,44	50.23	SH	LATH	20	1	70	167	11	5	3				Schulz 1996
P 1164	1202,83	1996,67	50.22	SH	STAKE	10	1	343	1643	48	50	2	pencil-shaped tip (4 facets), identical with P1258?		227	Schulz 1996
P 1165	1202,48	1997,38	50.23	SH	LATH	20	1	96	443	18	18	3			228	Schulz 1996
P 1166	1202,51	1995,02	50.22	SH	LATH	20	1	108	75	16	5	3				Schulz 1996
P 1167	1202,16	1995,08	50.23	SH	NATURAL PIECE OF WOOD	1	1	95	71	7	7	3	branch			Schulz 1996
P 1168	1201,98	1995,08	50.21	SH	LATH	20	1	335	503	19	11	3				Schulz 1996
P 1169	1200,76	1998,10	50.26	SH	LATH	20	1	67	989	30	17	2	end piece		229	Schulz 1996
P 1170	1200,79	1998,10	50.26	SH	NATURAL PIECE OF WOOD	2	1	62	583	37	31	2	branch			Schulz 1996
P 1171	1199,78	1997,23	50.23	SH	PILE	20	1	45	494	74	74	2	peg-shaped end			Schulz 1996
P 1172	1200,11	1997,67	50.28	SH	LATH	20	1	63	492	20	11	3				Schulz 1996
P 1173	1200,02	1997,35	50.23	SH	NATURAL PIECE OF WOOD	10	1	47	631	23	23	3	branch, shaped, narrowing in the middle			Schulz 1996
P 1174	1200,01	1997,38	50.24	SH	PILE	10	1	53	356	71	52	4	peg-shaped point fragment			Schulz 1996
P 1175	1199,88	1997,35	50.23	SH	LATH	20	1	51	148	18	16	2	end piece			Schulz 1996
P 1176	1200,92	1997,55	50.24	SH	NATURAL PIECE OF WOOD	2	1	39	623	31	27	2				Schulz 1996
P 1177	1200,27	1997,53	50.25	SH	LATH	20	1	36	286	17	13	2			230	Schulz 1996
P 1178	1200,38	1997,59	50.25	SH	NATURAL PIECE OF WOOD	2	1	61	332	59	38	3			231	Schulz 1996
P 1179	1199,80	1997,40	50.24	SH	WORKED WOOD	10	1	53	595	105	70	4	shaped, possibly pile			Schulz 1996
P 1180	1200,26	1997,43	50.24	SH	LATH	20	1	68	680	25	15	2				Schulz 1996
P 1181	1182,47	1953,00	50.31	H/SH	LATH	20	1	69	2055	23	14	2			232	Schulz 1996
P 1182	1182,56	1953,00	50.36	H/SH	PILE	20	1	69	1673	93	93	1	complete,pencil-shaped point (7 facets), slightly oblique end, good preservation, softwood		233	Schulz 1996
P 1183	1201,51	1997,98	50.24	SH	LATH	20	1	91	299	21	15	3				Schulz 1996
P 1184	1201,14	1996,98	50.24	SH	PILE	20	1	105	1960	80	59	3	complete, rounded wedge-shaped point, badly cracked, end part missing		234	Schulz 1996
P 1185	1201,06	1997,29	50.24	SH	PILE	20	1	101	1738	56	52	2	complete, slightly angular point, chisel-shaped end, poorly preserved, badly cracked		235	Schulz 1996
P 1186	1200,53	1997,57	50.24	SH	LATH	20	1	41	322	25	11	2			236	Schulz 1996
P 1187	1200,42	1997,55	50.25	SH	LATH	20	1	50	347	15	11	2				Schulz 1996
P 1188	1199,78	1997,45	50.24	SH	PILE	20	1	56	1592	55	58	3	peg-shaped point			Schulz 1996
P 1189	1199,87	1997,55	50.28	SH	LATH	20	1	33	193	21	10	2				Schulz 1996
P 1190	1199,90	1997,52	50.28	SH	LATH	20	1	70	317	17	16	2			237	Schulz 1996
P 1191	1199,82	1997,52	50.28	SH	LATH	20	1	68	881	24	21	3	triangular cross-section		238	Schulz 1996
P 1192	1199,80	1997,52	50.24	SH	LATH	20	1	53	835	22	9	2			239	Schulz 1996
P 1193	1200,30	1997,73	50.20	SH	LATH	20	1	54	266	13	11	2	quadrangular cross-section			Schulz 1996
P 1194	1200,32	1997,64	50.25	SH	NATURAL PIECE OF WOOD	10	1	55	160	46	35	2				Schulz 1996
P 1195	1200,51	1997,72	50.25	SH	LATH	20	1	58	866	21	12	2			240	Schulz 1996
P 1196	1200,39	1997,54	50.25	SH	NATURAL PIECE OF WOOD	10	1	48	275	37	24	2				Schulz 1996
P 1197	1199,82	1997,75	50.25	SH	PILE	10	1	56	592	70	66	2	wedge-shaped point			Schulz 1996
P 1198	1199,46	1997,55	50.24	SH	NATURAL PIECE OF WOOD	2	1	79	942	32	26	2				Schulz 1996
P 1199	1199,92	1997,64	50.28	SH	PILE	10	1	70	1909	63	57	4	peg-shaped point			Schulz 1996
P 1200	1200,08	1997,68	50.28	SH	LATH	20	1	63	768	22	11	2			241	Schulz 1996
P 1201	1200,43	1998,04	50.25	SH	LATH	20	1	72	779	21	13	2	end piece		242	Schulz 1996
P 1202	1199,80	1997,51	50.24	SH	NATURAL PIECE OF WOOD	1	1	80	213	25	18	2				Schulz 1996
P 1203	1199,10	1997,50	50.24	SH	LATH	20	1	69	1161	19	11	3	partly broken in two			Schulz 1996
P 1204	1199,65	1998,21	50.26	SH	LATH	20	1	68	995	16	14	3	cut from the trench section		243	Schulz 1996
P 1205	1199,78	1997,71	50.25	SH	LATH	20	1	57	40	13	10	2				Schulz 1996
P 1206	1199,94	1997,57	50.28	SH	LATH	20	1	51	144	16	11	2				Schulz 1996
P 1207	1200,06	1997,68	50.28	SH	LATH	20	1	68	229	16	8	2				Schulz 1996
P 1208	1208,44	1998,02	50.25	SH	LATH	20	1		210	25	12	2				Schulz 1996
P 1209	1200,77	1998,32	50.24	SH	LATH	20	1	66	308	12	9	2				Schulz 1996
P 1210	1200,58	1998,10	50.21	SH	NATURAL PIECE OF WOOD	10	1	60	175	45	41	2				Schulz 1996
P 1211	1199,78	1997,45	50.24	SH	LATH	20	1	56	422	20	9	3	broken in several pieces			Schulz 1996
P 1212	1199,77	1997,48	50.24	SH	LATH	20	1	50	105	15	7	3				Schulz 1996
P 1213	1199,38	1996,29	50.22	SH	LATH	20	1	50	459	23	10	3	broken in several pieces			Schulz 1996
P 1214	1199,97	1997,73	50.27	SH	NATURAL PIECE OF WOOD	2	1	403	96	16	16	2	branch			Schulz 1996
P 1215	1200,02	1997,54	50.26	SH	NATURAL PIECE OF WOOD	1	1	69	36	22	22	3	branch			Schulz 1996
P 1216	1200,18	1997,80	50.26	SH	LATH	20	1	61	171	20	19	3				Schulz 1996
P 1217	1200,03	1997,62	50.26	SH	NATURAL PIECE OF WOOD	10	1	64	525	59	38	3				Schulz 1996
P 1218	1199,92	1997,56	50.28	SH	WORKED WOOD	10	1	67	855	32	24	3	branch			Schulz 1996
P 1219	1200,76	1997,43	50.24	SH	PILE	10	1	400	1582	65	57	4	complete, flat-shaped point, end cut straight		244	Schulz 1996
P 1220	1200,40	1997,83	50.26	SH	LATH	20	1	53	216	16	12	2				Schulz 1996
P 1221	1199,97	1997,67	50.26	SH	PILE	10	1	63	735	43	38	4	tapering point			Schulz 1996
P 1222	1199,16	1997,34	50.25	SH	PILE	10	1	59	2366	76	61	2	complete, wedge-shaped point, end cut straight		245	Schulz 1996
P 1223	1199,66	1997,00	50.22	SH	LATH	20	1	120	615	36	20	3	triangular cross-section			Schulz 1996
P 1224	1200,58	1998,36	50.26	SH	NATURAL PIECE OF WOOD	10	1	84	444	65	26	4				Schulz 1996
P 1225	1200,76	1998,40	50.26	SH	PILE	10	1	58	805	88	78		in trench section, pencil-shaped point (7 facets), point missing after conservation		246	Schulz 1996
P 1226	1200,82	1998,48	50.26	SH	NATURAL PIECE OF WOOD	2	1	70					in trench section			Schulz 1996
P 1227	1200,35	1997,90	50.25	SH	PILE	10	1	87					in trench section			Schulz 1996
P 1228	1208,84	1991,63	50.17	H/SH	LATH	20	1	370	909	23	9	2	cut in four pieces			Schulz 1996
P 1229	1208,13	1990,73	50.13	H/SH	LATH	20	1	355	370	31	17	2	chisel-shaped end		247	Schulz 1996
P 1230	1208,71	1990,67	50.13	H/SH	LATH	20	1	353	192	22	15	2				Schulz 1996
P 1231	1209,16	1990,94	50.20	H/SH	LATH	20	1	380	328	16	11	2	in two pieces			Schulz 1996
P 1232	1210,47	1991,32	50.24	H/SH	LATH	20	1	113	167	22	11	2				Schulz 1996
P 1233	1210,18	1992,60	50.22	H/SH	LATH	20	1	346	148	24	15	2	in three pieces			Schulz 1996
P 1234	1210,03	1992,54	50.22	H/SH	LATH	20	1	369	99	17	9	2	in two pieces			Schulz 1996
P 1235	1205,30	1990,99	50.11	H/SH	LATH	20	1	73	1124	15	9	2	in four pieces			Schulz 1996
P 1236	1210,70	1992,70	50.21	H/SH	LATH	20	1	361	540	23	14	2	cut from the trench section			Schulz 1996
P 1237	1210,85	1992,75	50.21	H/SH	LATH	20	1	354	493	34	17	2				Schulz 1996
P 1238	1210,35	1990,69	50.25	H/SH	LATH	20	1	75	717	20	13	2	in seven pieces			Schulz 1996
P 1239	1210,36	1991,10	50.21	H/SH	LATH	20	1	54	557	17	11	2	in four pieces			Schulz 1996
P 1240	1999,28	1998,42	50.26	SH	NATURAL PIECE OF WOOD	10	1	72					in trench section			Schulz 1996
P 1241	1198,50	1997,45	50.25	SH	NATURAL PIECE OF WOOD	1	1	109	1270	33	31	3	branch			Schulz 1996

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 1242	1198,07	1998,29	50.27	SH	LATH	20	1	57	540	17	12	3				Schulz 1996
P 1243	1196,83	1997,62	50.23	SH	PILE	10	1	50	1674	57	54	3	point recovered only? peg-shaped end, pencil-shaped point		248	Schulz 1996
P 1244	1198,08	1998,42	50.25	SH	LATH	20	1	91	375	20	14	2			249	Schulz 1996
P 1245	1197,77	1998,06	50.25	SH	LATH	20	1	86	590	23	16	3				Schulz 1996
P 1246	1198,13	1998,35	50.28	SH	NATURAL PIECE OF WOOD	2	1	55	478	70	53	3				Schulz 1996
P 1247	1196,75	1998,21	50.26	SH	WORKED WOOD	20	1	44	2228	67	62	1	wedge-shaped point, one end grooved, fragmented		250	Schulz 1996
P 1248	1197,78	1998,13	50.25	SH	NATURAL PIECE OF WOOD	2	1	88	457	53	31	4				Schulz 1996
P 1249	1206,42	1998,55	50.21	SH	LATH	20	1	365	725	15	13	3				Schulz 1996
P 1250	1206,88	1998,59	50.23	SH	LATH	20	1	355	1075	25	20	3				Schulz 1996
P 1251	1197,77	1998,16	50.25	SH	NATURAL PIECE OF WOOD	2	1	78	376	26	22	4				Schulz 1996
P 1252	1197,66	1998,09	50.25	SH	NATURAL PIECE OF WOOD	2	1	83	510	46	39	3				Schulz 1996
P 1253	1197,53	1998,22	50.25	SH	NATURAL PIECE OF WOOD	2	1	68	436	96	65	3				Schulz 1996
P 1254	1197,60	1998,10	50.25	SH	NATURAL PIECE OF WOOD	2	1	390	443	83	48	3				Schulz 1996
P 1255	1197,78	1998,48	50.28	SH	NATURAL PIECE OF WOOD	2	1	53	434	48	57	4				Schulz 1996
P 1256	1197,78	1998,50	50.28	SH	NATURAL PIECE OF WOOD	2	1	59	201	33	15	3				Schulz 1996
P 1257	1196,80	1998,28	50.26	SH	WEDGE	20	1	54	440	46	45	3	fragment, peg-shaped point, possibly wedge-shaped end		251	Schulz 1996
P 1258	1197,06	1998,34	50.29	SH	STAKE	20	1	43	1678	50	42	2	or thin pile, carved point, cut from the trench section		252	Schulz 1996
P 1259	1198,52	1998,30	50.23	SH	LATH	20	1	381	163	24	11	2				Schulz 1996
P 1260	1197,77	1998,33	50.23	SH	LATH	20	1	95	145	10	5	4	chip of wood			Schulz 1996
P 1261	1197,49	1998,28	50.25	SH	LATH	20	1	54	500	30	17	3	in two pieces			Schulz 1996
P 1262	1198,79	1998,45	50.28	SH	NATURAL PIECE OF WOOD		1						in trench section			Schulz 1996
P 1263	1197,90	1998,33	50.24	SH	NATURAL PIECE OF WOOD	2	1	377	144	43	9	3				Schulz 1996
P 1264	1197,74	1998,50	50.28	SH	NATURAL PIECE OF WOOD	2	1	44	227	29	20	4				Schulz 1996
P 1265	1197,43	1998,49	50.27	SH	LATH	20	1	44	724	22	11	3	cut from the trench section			Schulz 1996
P 1266	1197,62	1998,34	50.23	SH	NATURAL PIECE OF WOOD	1	1	100	74	11	11	3	branch			Schulz 1996
P 1267	1197,49	1998,29	50.24	SH	LATH	20	1	117	124	13	8	3				Schulz 1996
P 1268	1197,27	1998,51	50.26	SH	NATURAL PIECE OF WOOD	2	1	85	207	13	12	3	branch			Schulz 1996
P 1269	1196,65	1998,44	50.29	SH	LATH	20	1		840	18	11	4	curved			Schulz 1996
P 1270	1199,58	1994,95	50.25	SH	NATURAL PIECE OF WOOD		1						in trench section			Schulz 1996
P 1271	1198,74	1994,91	50.24	SH	PILE	20	1	260	975	82	82	3	cut from trench section, 14C dating sample Hel-3917			Schulz 1996
P 1272	1198,35	1995,09	50.23	SH	PILE	10	1	294	480	88	88	3	bark attached, wedge-shaped point, cut from trench section (in same sample bag with n:o P1500!), badly preserved		253	Schulz 1996
P 1273	1196,59	1997,20	50.21	SH	NATURAL PIECE OF WOOD	2	1	52	268	45	11	5				Schulz 1996
P 1274	1196,12	1997,,82	50.23	SH	LATH	20	1	368	510	15	10	3				Schulz 1996
P 1275	1196,32	1998,46	50.33	SH	NATURAL PIECE OF WOOD	2		82	320	24	23		branch, cut from trench section			Schulz 1996
P 1276	1196,09	1996,01	50.24	SH	LATH SCREEN SECTION	20	1	94	888	303	26	3	seven laths and two birch bark bindings, lath securing underneath		254	Schulz 1996
P 1277	1195,96	1996,26	50.24	SH	WORKED WOOD	10	1	60	1116	28	28	2	carved point, broken			Schulz 1996
P 1278	1194,94	1995,75	50.21	SH	LATH	20	1	335	630	20	15	3				Schulz 1996
P 1279	1194,90	1995,36	50.21	SH	PILE	10	1	337	2644	53	42	3	end cut straight, cross-section roundish, deformed in water?		255	Schulz 1996
P 1280	1194,52	1996,45	50.23	SH	WORKED WOOD	10	1	374	496	81	36	3	fragment of perforated plank-shaped object?			Schulz 1996
P 1281	1194,35	1995,98	50.23	SH	LATH	20	1	338	658	23	17	2				Schulz 1996
P 1282	1194,59	1998,23	50.30	SH	PILE	10	1	100	855	59	44		cut from trench section, flat-shaped point		256	Schulz 1996
P 1283	1194,25	1997,73	50.31	SH	WORKED WOOD	10	1	100	1222	51	46	2	carved point			Schulz 1996
P 1284	1193,69	1998,44	50.32	SH	NATURAL PIECE OF WOOD	10	1	89	359	62	44	3				Schulz 1996
P 1285	1193,56	1997,38	50.22	SH	LATH	20	1	59	209	13	11	2				Schulz 1996
P 1286	1193,79	1997,48	50.27	SH	LATH	20	1	52	760	16	12	2			257	Schulz 1996
P 1287	1193,05	1997,78	50.32	SH	NATURAL PIECE OF WOOD	10	1	44	179	77	16	2	gnarl?			Schulz 1996
P 1288	1193,49	1997,76	50.29	SH	LATH	20	1	75	116	23	16	3	triangular cross-section			Schulz 1996
P 1289	1193,64	1997,85	50.29	SH	LATH	20	1	45	115	14	9	3				Schulz 1996
P 1290	1193,28	1997,56	50.29	SH	LATH	20	1	71	466	20	11	2				Schulz 1996
P 1291	1191,56	1997,13	50.32	SH	PILE	10	1	51	2455	95	76	3	complete, peg-shaped end, carved point, both ends degraded after conservation		258	Schulz 1996
P 1292	1192,24	1997,31	50.28	SH	LATH	20	1		269	25	19	3			259	Schulz 1996
P 1293	1193,55	1997,70	50.29	SH	LATH	20	1	73	547	21	11	2			260	Schulz 1996
P 1294	1193,28	1997,58	50.27	SH	LATH	20	1	61	370	20	15	3			261	Schulz 1996
P 1295	1193,00	1997,00	50.27	SH	LATHS	20	1	53				3				Schulz 1996
P 1296	1192,35	1997,30	50.28	SH	NATURAL PIECE OF WOOD	2	1	79	210	15	13	2	branch			Schulz 1996
P 1297	1192,36	1997,32	50.28	SH	NATURAL PIECE OF WOOD	2	1	79	205	30	26	3				Schulz 1996
P 1298	1191,64	1996,97	50.30	SH	PILE	10	1	56	964	69	59	4	peg-shaped point			Schulz 1996
P 1299	1191,88	1997,36	50.35	SH	NATURAL PIECE OF WOOD	2	1	86	607	154	60	4				Schulz 1996
P 1300	1192,21	1997,86	50.35	SH	WOODEN ARTEFACT	20	1	30	128	48	15	2	wedge-shaped end			Schulz 1996
P 1301	1192,24	1997,54	50.31	SH	PILE	10	1	49	1005	55	44	3	point fragment, rhomboid cross-section		262	Schulz 1996
P 1302	1192,82	1997,81	50.31	SH	PILE	10	1		1008	71	71		end cut-straight, notched underneath, pencil-shaped point, fractured tip		263	Schulz 1996
P 1302	1192,82	1997,81	50.30	SH	WOODEN ARTEFACT	20	1	40	1008	71	71	1	carved pine bark sinker, exhibit at Kierikki, wood number does not match!			Schulz 1996
P 1303	1193,72	1998,03	50.32	SH	WEDGE	20	1	40	577	62	57	2	complete, wedge-shaped point, a wedge			Schulz 1996
P 1304	1192,89	1997,89	50.30	SH	WORKED WOOD	10	1	30	207	79	47	3	cut from trench section			Schulz 1996
P 1305	1192,30	1997,60	50.31	SH	PILE	20	1	68	1030	74	65	2	end fragment, peg-shaped end, very badly preserved, no peg after conservation		264	Schulz 1996
P 1306	1192,74	1997,99	50.30	SH	PILE	10	1	55	584	61	52	3	tapering point hardwood			Schulz 1996
P 1307	1192,50	1997,85	50.31	SH	PILE	10	1	64	1360	78	59	4	both points charred			Schulz 1996
P 1308	1193,07	1998,24	50.30	SH	LATH	20	1	394	119	33	20	2				Schulz 1996
P 1309	1193,05	1997,97	50.32	SH	NATURAL PIECE OF WOOD	2	1	41	328	44	28	4				Schulz 1996
P 1310	1192,79	1997,88	50.30	SH	NATURAL PIECE OF WOOD	2	1	38	1119	19	19	2	branch			Schulz 1996
P 1311	1193,29	1998,41	50.31	SH	NATURAL PIECE OF WOOD	2	1	76	300	35	32	3				Schulz 1996
P 1312	1191,82	1997,62	50.33	SH	WORKED WOOD	20	1	63	2447	47	43	2	one end rounded			Schulz 1996
P 1313	1192,77	1998,20	50.30	SH	PILE	10	1	78	878	65	52	5				Schulz 1996
P 1314	1192,15	1998,26	50.34	SH	PILE	10	1	55	955	66	57	4	point recovered, possibly peg-shaped point			Schulz 1996
P 1315	1193,07	1997,05	50.27	SH	WORKED WOOD	10	1	52	2730	36	34	2	flat-shaped point			Schulz 1996
P 1316	1191,86	1996,99	50.29	SH	LATH	20	1	379	370	30	21	3	triangular cross-section, partly fragmented			Schulz 1996
P 1317	1200,06	1996,03	50.17	SH	WOODEN ARTEFACT	20	1	365	135	96	5	2	carved pine bark float, fragmented from perforation, exhibit at Kierikki		265	Schulz 1996
P 1318	1211,57	1996,58	50.18	SH	LATH	20	1	30	112	19	7	2	in two fragments			Schulz 1996
P 1319	1180,45	1955,26	50.26	SH	WEDGE	20	1	57	755	78	78	2	complete wedge hardwood		266	Schulz 1996
P 1320	1180,47	1955,33	50.13	SH	LATH	20	1	58	916	15	13	2			267	Schulz 1996
P 1321	1180,09	1954,50	50.24	SH	NATURAL PIECE OF WOOD	1	1	376	99	74	8	2	bark hardwood			Schulz 1996
P 1322	1180,35	1954,86	50.17	SH	LATH	20	1	88	395	14	10	2			268	Schulz 1996
P 1323	1180,58	1954,94	50.16	SH	LATH	20	1	128	104	9	9	2				Schulz 1996
P 1324	1180,10	1954,65	50.16	SH	NATURAL PIECE OF WOOD	2	1	49	267	28	27	3				Schulz 1996
P 1325	1181,31	1956,13	50.13	SH	LATH	20	1	18	287	17	9	2				Schulz 1996
P 1326	1181,62	1956,38	50.18	SH	LATHS	20	1					2				Schulz 1996
P 1327	1182,40	1956,47	50.13	SH	LATH	20	1	59	120	9	6	2			269	Schulz 1996
P 1328	1183,56	1953,58	50.17	SH	LATH	20	1	356	449	21	14	3				Schulz 1996
P 1329	1183,11	1953,51	50.17	SH	NATURAL PIECE OF WOOD	10	1	375	170	18	11	4				Schulz 1996
P 1330	1181,91	1953,65	50.25	SH	LATH	20	1	71	190	13	11	2	triangular cross-section			Schulz 1996
P 1331	1183,97	1954,95	50.26	SH	NATURAL PIECE OF WOOD	2	1	68	110	33	6	4				Schulz 1996
P 1332	1183,73	1955,23	50.15	SH	LATH	20	1	83	161	19	7	2				Schulz 1996
P 1333	1183,62	1955,40	50.13	SH	LATH	20	1	375	279	17	9	2				Schulz 1996
P 1334	1183,30	1955,38	50.23	SH	LATH	20	1	388	138	16	8	3				Schulz 1996
P 1335	1182,53	1955,24	50.15	SH	NATURAL PIECE OF WOOD	2	1	86	140	8	8	4	branches			Schulz 1996
P 1336	1200,40	1988,95	50.28	H/SH	LATH	20	1	87	578	22	18	3	cut from trench section (in five fragments)			Schulz 1996
P 1337	1201,10	1991,00	50.25	H/SH	LATHS	20	1	19	200	21	8	3				Schulz 1996
P 1338	1200,65	1991,00	50.29	H/SH	LATH	20	1	8	203	22	9	2				Schulz 1996
P 1339	1200,32	1991,00	50.30	H/SH	LATH	20	1	86	234	15	14	3				Schulz 1996
P 1340	1200,22	1991,22	50.31	H/SH	NATURAL PIECE OF WOOD	2	1	56	203	21	18	3	branch			Schulz 1996
P 1341	1200,08	1991,24	50.28	H/SH	LATH	20	1	56	943	22	15	2			270	Schulz 1996
P 1342	1199,05	1989,60	50.27	H/SH	NATURAL PIECE OF WOOD	1	1	54	339	14	11	2	branch			Schulz 1996
P 1343	1198,27	1989,18	50.29	H/SH	LATH	20	1	42	545	22	10	3	in four pieces			Schulz 1996
P 1344	1197,72	1989,40	50.29	H/SH	PILE	10	1	372	439	66	62	2	carved point			Schulz 1996
P 1345	1199,26	1992,49	50.26	S/SH	PILE	10	1	135	1567	67	63	2	carved point			Schulz 1996
P 1346	1197,27	1989,93	50.29	S/SH	LATH	20	1	63	738	17	16	2			271	Schulz 1996
P 1347	1197,90	1991,72	50.26	S/SH	LATH	20	1	55	264	15	9	3	in pieces			Schulz 1996
P 1348	1198,08	1992,39	50.24	S/SH	LATH	20	1	51	366	18	16	2			272	Schulz 1996
P 1349	1196,24	1991,94	50.26	S/SH	WOODEN ARTEFACT	20	1	43	2004	32	27	2	hooked pole, broad grooves in places		273	Schulz 1996
P 1350	1196,03	1991,95	50.23	S/SH	NATURAL PIECE OF WOOD	2	1	52	273	15	15	2	branch			Schulz 1996
P 1351	1195,98	1991,61	50.22	S/SH	LATH	20	2	82	366	14	11	3	in three pieces			Schulz 1996
P 1352	1195,39	1991,81	50.23	S/SH	NATURAL PIECE OF WOOD	1	1	45	497	21	21	3	branch			Schulz 1996
P 1353	1211,18	1996,13	50.17	SH	LATH	20	1	11	619	26	18	2			274	Schulz 1996
P 1354	1210,44	1995,53	50.18	SH	LATH	20	1	82	1060	29	16	3	in three pieces		275	Schulz 1996
P 1355	1209,70	1995,75	50.16	SH	STAKE	10	1	42	652	34	32	2	pencil-shaped point fragment		276	Schulz 1996
P 1356	1209,68	1995,67	50.15	SH	LATH	20	1	53	444	24	11	3	in two pieces, end piece broken in two			Schulz 1996
P 1357	1209,75	1995,71	50.15	SH	LATH	20	1	42	907	20	14	2	chisel-shaped end		277	Schulz 1996

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 1358	1210,90	1996,67	50.14	SH	LATH	20	1	59	756	20	9	3	in three pieces, both ends worked			Schulz 1996
P 1359	1211,33	1997,97	50.17	SH	LATH	20	1	363	339	20	15	2	chisel-shaped end		278	Schulz 1996
P 1360	1204,36	1997,97	50.12	SH	LATH	20	1	46	279	18	10	3			279	Schulz 1996
P 1361	1204,30	1995,16	50.12	SH	NATURAL PIECE OF WOOD	10	1	39	149	22	5	3				Schulz 1996
P 1362	1204,02	1998,23	50.21	SH	NATURAL PIECE OF WOOD	2	1	48	472	13	13	3	branch			Schulz 1996
P 1363	1203,52	1998,03	50.19	SH	NATURAL PIECE OF WOOD	2	1	74	251	48	14	4				Schulz 1996
P 1364	1202,73	1997,23	50.17	SH	LATH	20	1	345	1120	22	19	3	in two pieces		280	Schulz 1996
P 1365	1202,90	1997,15	50.11	SH	LATH	20	1	65	656	27	12	3			281	Schulz 1996
P 1366	1201,63	1997,70	50.17	SH	LATH	20	1	368	213	24	13	3				Schulz 1996
P 1367	1201,39	1997,14	50.18	SH	LATH	20	1	394	304	33	13	2				Schulz 1996
P 1368	1201,05	1997,30	50.19	SH	LATH	20	1	72	427	24	10	3	in four pieces			Schulz 1996
P 1369	1201,25	1997,33	50.17	SH	NATURAL PIECE OF WOOD	2	1	379	211	18	16	3	branch			Schulz 1996
P 1370	1201,45	1997,30	50.16	SH	NATURAL PIECE OF WOOD	10	1	55	101	13	9	2				Schulz 1996
P 1371	1200,01	1996,62	50.15	SH	LATH	20	1	128	275	17	11	3				Schulz 1996
P 1372	1200,20	1996,17	50.18	SH	LATH	20	1	62	290	14	10	3	in three pieces			Schulz 1996
P 1373	1200,05	1996,05	50.11	SH	LATH	20	1	69	171	13	9	3				Schulz 1996
P 1374	1201,10	1997,57	50.19	SH	NATURAL PIECE OF WOOD	10	1	15	194	22	10	3	wood chip			Schulz 1996
P 1375	1198,05	1995,02	50.09	SH	LATH	20	1	73	172	21	10	2				Schulz 1996
P 1376	1198,04	1998,37	50.18	SH	NATURAL PIECE OF WOOD	1	1	30	178	130	2	3	bark			Schulz 1996
P 1377	1200,21	1989,37	50.22	SH	LATH	20	1	81	282	16	13	2				Schulz 1996
P 1378	1200,25	1989,42	50.20	SH	LATH	20	1	81	224	16	10	3	rounded end			Schulz 1996
P 1379	1200,15	1989,35	50.27	SH	PILE	10	1	82	448	68	38	3	pointed fragment			Schulz 1996
P 1380	1200,19	1989,52	50.22	SH	NATURAL PIECE OF WOOD	2	1	77	275	27	19	2	branch			Schulz 1996
P 1381	1200,42	1990,03	50.14	SH	LATH	20	1	83	344	20	11	3	in five pieces			Schulz 1996
P 1382	1200,10	1991,08	50.28	SH	LATH	20	1	19	431	24	9	2				Schulz 1996
P 1383	1200,44	1991,12	50.28	SH	LATH	20	1	15	90	16	6	3				Schulz 1996
P 1384	1199,10	1992,60	50.25	SH	LATH	20	1	101	130	24	17	3	triangular cross-section			Schulz 1996
P 1385	1199,00	1992,50	50.25	SH	LATH	20	1	360	297	23	19	3	in trench section, possibly grooved, triangular cross-section		282	Schulz 1996
P 1386	1199,05	1992,55	50.25	SH	WORKED WOOD	10	1	101	109	19	17	2	tapering point			Schulz 1996
P 1387	1194,54	1991,27	50.18	SH	NATURAL PIECE OF WOOD	10	1	52	331	36	32	2	branch, roundish end			Schulz 1996
P 1388	1195,24	1991,26	50.16	SH	PILE	10	1	65	592	65	57	3	notched end, bark attached, aspen?			Schulz 1996
P 1389	1195,00	1991,11	50.17	SH	LATH	20	1	59	700	24	10	3	in two pieces		283	Schulz 1996
P 1390	1195,08	1991,32	50.19	SH	NATURAL PIECE OF WOOD	10	1	64	267	39	25	2				Schulz 1996
P 1391	1195,05	1991,27	50.19	SH	WORKED WOOD	10	1	67	398	66	55	3	end cut-straight			Schulz 1996
P 1392	1204,69	1989,45	50.12	SH	LATH	20	1	93	180	27	12	3				Schulz 1996
P 1393	1203,59	1989,90	50.14	SH	LATH	20	1	73	709	22	11	2	end piece		284	Schulz 1996
P 1394	1202,72	1989,30	50.15	SH	LATH	20	1	53	1168	21	12	3	bent		285	Schulz 1996
P 1395	1202,35	1989,25	50.15	SH	NATURAL PIECE OF WOOD	2	1	61	462	45	27	4				Schulz 1996
P 1396	1202,05	1988,96	50.16	SH	NATURAL PIECE OF WOOD	2	1	52	460	45	25	5	in trench section			Schulz 1996
P 1397	1195,20	1991,73	50.16	SH	NATURAL PIECE OF WOOD	10	1	36	348	24	24	2	branch, narrowings			Schulz 1996
P 1398	1195,09	1991,62	50.16	SH	NATURAL PIECE OF WOOD	10	1	49	430	39	39	3	narrowed			Schulz 1996
P 1399	1194,32	1991,41	50.22	SH	WORKED WOOD	10	1	46	526	47	35	4	pointed end			Schulz 1996
P 1400	1194,94	1991,12	50.19	SH	LATH	20	1	68	767	31	15	2			286	Schulz 1996
P 1401	1195,16	1991,21	50.16	SH	LATH	20	1	62	688	17	7	2				Schulz 1996
P 1402	1194,46	1991,41	50.22	SH	PILE	10	1	44	1212	64	57	3	point fragment, peg-shaped and halved		287	Schulz 1996
P 1403	1195,26	1991,73	50.16	SH	LATH	20	1	38	174	24	9	2				Schulz 1996
P 1404	1195,20	1991,65	50.14	SH	NATURAL PIECE OF WOOD	1	1	40	406	21	21	3	branch			Schulz 1996
P 1405	1195,07	1991,44	50.16	SH	LATH	20	1	49	297	19	14	2	end piece			Schulz 1996
P 1406	1195,04	1991,45	50.16	SH	LATH	20	1	46	356	23	11	3				Schulz 1996
P 1407	1195,06	1991,41	50.18	SH	NATURAL PIECE OF WOOD	10	1	48	345	43	12	2			288	Schulz 1996
P 1408	1195,00	1991,58	50.19	SH	LATH	20	1	45	181	21	17	2	depressions			Schulz 1996
P 1409	1194,95	1991,64	50.19	SH	LATH	20	1	21	397	22	17	3	possibly tapering end		289	Schulz 1996
P 1410	1195,46	1991,76	50.13	SH	LATH	20	1	48	146	17	12	3				Schulz 1996
P 1411	1195,11	1991,65	50.13	SH	LATH	20	1	48	417	21	12	3			290	Schulz 1996
P 1412	1194,80	1991,45	50.19	SH	PILE	10	1	43	786	54	52	3	complete? tapering point, possibly one end cut straight, both ends poorly preserved		291	Schulz 1996
P 1413	1194,84	1991,62	50.19	SH	LATH	20	1	26	539	20	10	2	binding depression, in two pieces			Schulz 1996
P 1414	1194,88	1991,60	50.19	SH	NATURAL PIECE OF WOOD	1	1	6	294	21	19	3	branch			Schulz 1996
P 1415	1195,50	1991,65	50.14	SH	LATH	20	1	5	167	18	13	2	end piece			Schulz 1996
P 1416	1194,37	1991,37	50.18	SH	PILE	10	1	36	851	36	34	4	flat-shaped point, one end halved		292	Schulz 1996
P 1417	1195,28	1991,62	50.15	SH	LATH	20	1	15	128	18	11	2				Schulz 1996
P 1418	1195,22	1991,60	50.15	SH	LATH	20	1	22	397	20	15	2	partly charred		293	Schulz 1996
P 1419	1195,16	1991,23	50.18	SH	LATH	20	1	72	478	18	16	1	rounded end		294	Schulz 1996
P 1420	1195,14	1991,25	50.18	SH	LATH	20	1	69	508	21	15	2			295	Schulz 1996
P 1421	1195,50	1991,60	50.14	SH	LATH	20	1	27	438	18	12	2	two grooves in the middle		296	Schulz 1996
P 1422	1195,20	1991,50	50.15	SH	WOODEN ARTEFACT	20	1	38	370	59	9	2	flat plank-shaped object			Schulz 1996
P 1423	1195,63	1991,24	50.15	SH	NATURAL PIECE OF WOOD	1	1	44	112	12	11	2	branch			Schulz 1996
P 1424	1195,46	1991,57	50.16	SH	WOODEN ARTEFACT	20	1	28	276	19	13	3	barbed-shaped point			Schulz 1996
P 1425	1195,55	1991,60	50.16	SH	LATH	20	1	4	484	12	11	2	end made thinner			Schulz 1996
P 1426	1195,50	1991,50	50.16	SH	LATH	20	1	39	355	16	11	3	in three pieces			Schulz 1996
P 1427	1194,50	1991,45	50.20	SH	NATURAL PIECE OF WOOD	10	1	52	398	31	7	3	lath-shaped piece			Schulz 1996
P 1428	1194,73	1991,50	50.19	SH	NATURAL PIECE OF WOOD	1	1	97	135	19	17	2	branch			Schulz 1996
P 1429	1195,08	1991,47	50.18	SH	NATURAL PIECE OF WOOD	10	1	42	274	34	5	4				Schulz 1996
P 1430	1195,17	1991,52	50.15	SH	NATURAL PIECE OF WOOD	10	1	45	129	26	5	3				Schulz 1996
P 1431	1195,20	1991,45	50.16	SH	LATH	20	1	56	133	24	10	2				Schulz 1996
P 1432	1194,99	1991,42	50.16	SH	LATH	20	1	30	114	20	7	3	end piece			Schulz 1996
P 1433	1195,10	1991,41	50.17	SH	LATH	20	1	74	358	17	8	4				Schulz 1996
P 1434	1194,83	1991,12	50.21	SH	LATH	20	1	87	580	22	13	2			297	Schulz 1996
P 1435	1195,10	1991,57	50.15	SH	NATURAL PIECE OF WOOD	1	1	45	185	15	5	3	bark			Schulz 1996
P 1436	1192,37	1989,71	50.20	SH	LATH	20	1	387	255	25	15	2	end piece			Schulz 1996
P 1437	1192,38	1989,10	50.18	SH	LATH	20	1	0	223	15	13	3	in two pieces			Schulz 1996
P 1438	1212,03	1996,68	50.03	SH	PILE	10	1	235	470	76	67	2	pencil-shaped point with peg			Schulz 1996
P 1439	1211,02	1997,19	50.02	SH	WORKED WOOD	10	1	78	731	66	56	3	hook-shaped point, poorly preserved		298	Schulz 1996
P 1440	1211,10	1996,87	50.03	SH	WORKED WOOD	10	1	72	338	86	32	3	notches?		299	Schulz 1996
P 1441	1212,43	1996,79	50.03	SH	LATH	20	1	84	267	19	11	2				Schulz 1996
P 1442	1211,54	1996,44	50.03	SH	LATH	20	1	252	165	17	12	2				Schulz 1996
P 1443	1211,04	1996,79	50.03	SH	NATURAL PIECE OF WOOD	2	1	8	295	161	84	3				Schulz 1996
P 1444	1210,50	1995,49	50.02	SH	PILE	20	1	100	2099	65	64	1	both ends pointed, pencil-shaped points, rounded tip, totally in pieces		300	Schulz 1996
P 1445	1212,60	1997,42	50.03	SH	NATURAL PIECE OF WOOD	20	1	130	68	40	29	2	deformed in water		301	Schulz 1996
P 1446	1211,75	1997,24	50.00	SH	LATH	20	1	80	310	19	11	2	end piece			Schulz 1996
P 1447	1211,63	1997,46	50.05	SH	LATH	20	1	79	210	19	11	4				Schulz 1996
P 1448	1211,69	1996,77	50.04	SH	PILE	10	1	62	1329	81	76	1	in trench section, pointed end			Schulz 1996
P 1449	1211,32	1996,82	50.02	SH	PILE	20	1	60	2214	75	75	1	complete, sharp pencil-shaped point (7 facets), peg-shaped end ('rolling pin')		302	Schulz 1996
P 1450	1210,92	1996,74	50.03	SH	PILE	20	1	8	621	74	63	2	fragment, pencil-shaped end			Schulz 1996
P 1451	1210,85	1996,78	49.97	SH	PILE	20	2	57	1835	86	82	1	complete, point carved quadrangular, end cut straight, branchy wood, dendro sample FIO3907=17BC, deformed in water		303	Schulz 1996
P 1452	1211,70	1997,75	50.02	SH	WORKED WOOD	10	1	63	371	97	95	3	possibly pile fragment			Schulz 1996
P 1453	1211,58	1997,82	49.94	SH	PILE	20	2	58	771	111	86	1	tapering ends, depression in the middle, dendro sample, hardwood		304	Schulz 1996
P 1454	1212,25	1998,05	50.02	SH	PILE	20	1	367	682	81	77	2	end cut, point recovered		305	Schulz 1996
P 1455	1210,18	1997,50	50.02	SH	PILE	20	1	44	1174	86	81	2	complete, tapering quadrangular point, dendro sample FIO3910=2BC		306	Schulz 1996
P 1456	1210,09	1997,59	50.03	SH	PILE	20	1	65	1871	97	97	1	one end cut straight and notched, pencil-shaped point (7 facets), hardwood, in two pieces, binding depression in the narrowest part, well-preserved		307	Schulz 1996
P 1457	1212,00	1996,93	50.06	SH	LATH	20	1	61	339	19	6	2			308	Schulz 1996
P 1458	1209,97	1995,11	50.06	SH	LATH	20	1	28	751	21	12	3	in four pieces, end piece			Schulz 1996
P 1459	1210,14	1997,35	50.03	SH	LATH	20	1	37	515	19	10	3	in four pieces, longest fragment recovered only			Schulz 1996
P 1460	1210,05	1997,58	50.03	SH	LATH	20	1	136	271	18	7	3	in two pieces, one fragment recovered			Schulz 1996
P 1461	1209,65	1997,64	50.06	SH	NATURAL PIECE OF WOOD	1	1	47	333	19	15	3	branch			Schulz 1996
P 1462	1209,55	1997,61	50.04	SH	LATH	20	1	181	227	17	11	3	end piece, in two pieces			Schulz 1996
P 1463	1208,94	1995,70	50.03	SH	LATH	20	1	87	641	17	13	2			309	Schulz 1996
P 1464	1209,44	1995,41	50.06	SH	LATH	20	1	141	144	21	9	2				Schulz 1996
P 1465	1209,27	1995,77	50.05	SH	LATH	20	1	278	194	21	9	3	end piece			Schulz 1996
P 1466	1209,05	1995,64	50.06	SH	PILE	20	1	165	161	50	35	2	end fragment, split and cut			Schulz 1996
P 1467	1209,24	1995,66	50.06	SH	NATURAL PIECE OF WOOD	2	1	176	194	36	22	3	possibly point fragment of pile			Schulz 1996
P 1468	1209,20	1995,53	50.05	SH	PILE	10	1	236	100	39	15	3	pile fragment			Schulz 1996
P 1469	1209,54	1996,80	50.02	SH	LATH	20	1	237	361	14	8	3	four fragments, binding groove in one fragment			Schulz 1996
P 1470	1209,21	1996,84	50.05	SH	NATURAL PIECE OF WOOD	1	1	4	124	17	14	4	branch			Schulz 1996
P 1471	1209,19	1996,80	50.05	SH	LATH	20	1	267	908	21	18	2	chisel-shaped end			Schulz 1996
P 1472	1208,63	1996,45	50.06	SH	LATH	20	1	54	230	18	18	2	end piece		310	Schulz 1996
P 1473	1205,34	1996,71	50.02	SH	WORKED WOOD	10	1	53	1185	43	42	1	fork-shaped object, broken in pieces, natural branch?		311	Schulz 1996
P 1474	1209,44	1996,00	50.03	SH	PILE	10	1	308	1002	64	61	2	pencil-shaped point fragment (6 facets), cut from trench section, poor preservation		312	Schulz 1996
P 1475	1208,20	1995,63	49.98	SH	PILE	10	2	38	872	38	37	2	tapering point			Schulz 1996

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wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 1476	1207,54	1995,54	50.01	SH	LATH	20	1	318	290	19	6	3				Schulz 1996
P 1477	1207,97	1995,73	50.02	SH	NATURAL PIECE OF WOOD	1	1	53	268	19	19	3	branch, bent			Schulz 1996
P 1478	1209,02	1997,83	50.05	SH	LATH	20	1	251	356	22	14	2	triangular cross-section			Schulz 1996
P 1479	1208,33	1997,50	50.09	SH	LATH	20	1	258	670	18	11	3			313	Schulz 1996
P 1480	1208,47	1996,98	50.06	SH	LATH	20	1	36	398	12	6	4				Schulz 1996
P 1481	1207,23	1997,08	50.04	SH	LATH	20	2	35	877	24	10	3	in four pieces			Schulz 1996
P 1482	1207,66	1997,66	50.04	SH	LATH	20	1	140	259	23	7	2			314	Schulz 1996
P 1483	1207,87	1997,54	50.04	SH	LATH	20	1	391	362	17	9	2				Schulz 1996
P 1484	1207,70	1997,65	50.04	SH	WORKED WOOD	10	1	7	146	29	16	3	carved point			Schulz 1996
P 1485	1207,67	1997,64	50.04	SH	LATH	20	1	11	404	18	8	3				Schulz 1996
P 1486	1207,74	1997,74	50.04	SH	LATH	20	1	35	583	16	13	2			315	Schulz 1996
P 1487	1207,19	1997,53	49.97	SH	PILE	10	1	47	2715	118	102	2	peg-shaped end, irregular angular point, very badly preserved		316	Schulz 1996
P 1488	1208,19	1995,68	50.03	SH	WORKED WOOD	10	1	41	1028	54	54	1	rod with chisel-shaped ends		317	Schulz 1996
P 1489	1207,30	1998,02	50.04	SH	LATH	20	1	130	294	15	13	3	in three pieces			Schulz 1996
P 1490	1207,00	1997,06	50.03	SH	LATH	20	1	46	735	14	9	3	in seven pieces			Schulz 1996
P 1491	1205,41	1995,09	50.04	SH	LATH	20	1	50	1233	26	14	2			318	Schulz 1996
P 1492	1204,97	1996,43	50.01	SH	PILE	20	1	58	1538	70	70	1	pencil-shaped point (6-7 facets), broken in pieces, very fragile, pine		319	Schulz 1996
P 1493	1205,62	1996,90	50.01	SH	LATH	20	1	50	677	21	19	2			320	Schulz 1996
P 1494	1204,99	1996,71	50.01	SH	LATH	20	2	49	1054	16	11	2			321	Schulz 1996
P 1495	1204,24	1996,44	49.97	SH	STAKE	20	2	48	1399	28	28	1/6	complete, carved point, blunt end charred, pine		322	Schulz 1996
P 1496	1204,75	1995,72	50.02	SH	LATH	20	1	396	266	21	14	2			323	Schulz 1996
P 1497	1204,90	1995,93	50.02	SH	NATURAL PIECE OF WOOD	0	1	30	147	50	23	1	pine bark			Schulz 1996
P 1498	1201,49	1997,31	49.99	SH	WORKED WOOD	10	1	102	1170	106	43	3	halved trunk, tool marks, not discernible after conservation, hardwood		324	Schulz 1996
P 1499	1197,92	1995,68	49.96	SH	NATURAL PIECE OF WOOD	2	1	62	810	190	190	2	chunky hardwood with several worm holes		325	Schulz 1996
P 1500	1200,52	1998,25	50.20	SH	WORKED WOOD	20	1	38	457	76	58	2	wedge-shaped point (in sample bag n:o P1449)		326	Schulz 1996
P 1501	1213,22	1994,04	50.28	H/SH	WOODEN ARTEFACT	20	1	48	245	68	45	2	artefact fragment			Schulz 1996
P 1502	1213,13	1994,55	50.28	H/SH	NATURAL PIECE OF WOOD	10	1	31	760	102	95	3	trimmed wood with worm holes		327	Schulz 1996
P 1503	1213,00	1995,00	x	SH	NATURAL PIECE OF WOOD	x	x	x	x	x	x	x	14C dating sample Hel-3918			Schulz 1996
P 1504	1200,99	1998,35	50.22	SH	LATH	20	1	50	364	16	11	2	in sample bag n:o P 1450			Schulz 1996
P 1505	1201,20	1998,45	50.22	SH	LATH	20	1	62	295	27	19	2	cut from trench section, in sample bag n:o P 1451		328	Schulz 1996
P 1506	1230,00	1993,00	50.59	SH/M	LATH	20	1	x	332	19	13	3	in two pieces			Schulz 1996
P 1507	1090,00	2020,00	50.00	SH	LATH	20	1	x	400	18	12	3	in five pieces			Schulz 1996
P 1508	1060,10	2035,08	49.94	SH	LATH	20	1	390	282	24	17	2	end piece			Schulz 1996
P 1509	1080,00	2070,00	50.07	SH	NATURAL PIECE OF WOOD	0	1	x	516	33	6	4	bark in four pieces			Schulz 1996
P 1510	1080,00	2070,00	50.07	SH	LATH	20	1	x	1111	25	12	4	in 14 pieces			Schulz 1996
P 1511	1080,00	2070,00	50.07	SH	NATURAL PIECE OF WOOD	1	1	x	166	15	11	3	branch in two pieces			Schulz 1996
P 1512	1195,00	2080,00	50.51	H/SH	LATH	20	1	50	199	10	10	3				Schulz 1996
P 1513	1195,00	2080,00	50.51	H/HS	LATH	20	1	50	337	32	11	3				Schulz 1996
P 1514	1195,00	2080,00	50.41	SH	LATH	20	1	x	582	20	13	3	in four pieces			Schulz 1996
P 1515	1090,00	2020,00	50.00	SH	NATURAL PIECE OF WOOD	0	1	x	43	24	24	4	two pine cones			Schulz 1996
P 1516	1060,00	2030,00	x	x	NATURAL PIECE OF WOOD	x	x	x	x	x	x	x	several undefined pieces			Schulz 1996
P 1517	1060,00	2030,00	x	x	LATH	20	x	x	678	20	11	2	in five pieces			Schulz 1996
P 1518	1060,00	2030,00	x	x	LATH	20	x	x	155	14	10	3				Schulz 1996
P 1519	1060,00	2030,00	x	x	LATH	20	x	x	248	29	9	2	in two pieces, end piece			Schulz 1996
P 1520	1060,40	2033,05	49.94	SH	WOODEN ARTEFACT	20	1	390	225	60	22	2	gutter-shaped object			Schulz 1996
P 1521	1192,42	1996,83	50.29	SH	LATH	20	1	254	1623	25	13	3			329	Schulz 1996
P 1522	x	x	x		LATH	20			x	x	x	2	in six pieces	30603		Schulz 1997
P 1523	x	x	x		PILE	10			1041	58	55	3	fragment, point carved flat			Schulz 1997
P 1524	1201,00	1993,00	x	T/H	PILE	10			370	63	61	1	fragment, end worked			Schulz 1997
P 1525	x	x	x		LATH	20			x	x	x	1	test pit, in two pieces			Schulz 1997
P 1526	x	x	x		LATH	20			x	x	x	2	test pit, lath fragments			Schulz 1997
P 1527	x	x	x		LATH	20			x	x	x	2	test pit, lath fragments			Schulz 1997
P 1528	x	x	x		NATURAL PIECE OF WOOD	10			x	x	x	3	test pit, chips of wood			Schulz 1997
P 1529	x	x	x		LATH	20			x	x	x	2	test pit, six fragments			Schulz 1997
P 1530	x	x	x		LATH	10			78	25	11	1	test pit, rounded end piece			Schulz 1997
P 1531	1199,73	1993,22	50.21	H/SH	PILE	10	0		1610	74	73	2	complete, pencil-shaped point (6-7 facets), end cut straight, bark attached, birch		1	Schulz 1997
P 1532	1212,88	1992,78	50.21	H/SH	LATH	20	12		700	29	9	3	in six pieces, hardwood			Schulz 1997
P 1533	1211,86	1993,90	50.26	H/SH	LATH	20	0		1149	15	18	2	in two pieces			Schulz 1997
P 1534	x	x	x		LATH	20			x	x	x	2	test pit, in five pieces			Schulz 1997
P 1535	1197,90	1993,90	50.19	H/SH	WOODEN ARTEFACT	20	0		1117	66	12	4	board-shaped object or wide lath, binding depression		2	Schulz 1997
P 1536	1210,72	1992,72	50.22	H/SH	LATH	10	0		146	32	19	3	bevelled end fragment			Schulz 1997
P 1537	1197,17	1994,10	50.21	H	STAKE	10	0		1163	26	26	2	pencil-shaped point (6-7 facets), end cut bevelled		3	Schulz 1997
P 1538	1197,79	1994,52	50.2	H	PILE	10	0		1384	68	68	4	peg-shaped end, point damaged by excavator			Schulz 1997
P 1539	1197,40	1994,31	50.21	H	NATURAL PIECE OF WOOD	0	0		804	37	51	2	branch			Schulz 1997
P 1540	1198,55	1993,84	50.15	H/SH	PILE	10	0		1600	76	76	4	end fragment, notched end, excavator damages		4	Schulz 1997
P 1541	1197,39	1993,89	50.19	H/SH	LATH	20	0		666	28	22	2	possible binding groove, cross-section segmented, broken in pieces		5	Schulz 1997
P 1542	1198,28	1994,11	50.18	H/SH	PILE	10	0		1450	69	69	3	pencil-shaped point (7 facets), end partly rounded			Schulz 1997
P 1543	1197,98	1994,57	50.19	H/SH	LATH	20	0		410	45	10	2			6	Schulz 1997
P 1544	1197,51	1994,18	50.20	H/SH	NATURAL PIECE OF WOOD	2	0		1455	67	67	4	one end bended, hardwood			Schulz 1997
P 1545	1197,50	1994,70	50.20	H/SH	NATURAL PIECE OF WOOD	0	0		655	42	36	3	branch, broken			Schulz 1997
P 1546	1200,78	1994,17	50.25	H+6	WORKED WOOD	10	0		1782	49	52	2	notched, both ends broken, excavator damages			Schulz 1997
P 1547	1199,92	1993,59	50.20	H/SH	LATH	20	0		440	23	11	2	broken			Schulz 1997
P 1548	1199,26	1993,51	50.21	H/SH	PILE	10	0		1140	67	67	4	peg-shaped point, rounded end, hardwood			Schulz 1997
P 1549	1199,92	1992,78	50.21	H/SH	LATH	20	0		420	20	12	3	fragmented			Schulz 1997
P 1550	1199,42	1993,36	50.20	H/SH	PILE	10	0		1830	75	75	4	hardwood			Schulz 1997
P 1551	1199,11	1992,89	50.21	H/SH	LATH	20	0		132	28	18	3	fragment			Schulz 1997
P 1552	1200,67	1993,04	50.22	H/SH	LATH	20	0		194	13	12	3				Schulz 1997
P 1553	1200,12	1993,33	50.10	H/SH	LATH	20	0		411	25	15	2				Schulz 1997
P 1554	1201,49	1992,84	50.22	H/SH	LATH	20	0		892	22	15	3				Schulz 1997
P 1555	1199,18	1993,34	50.22	H/SH	LATH	20	0		640	23	115	2	triangular cross-section			Schulz 1997
P 1556	1199,31	1993,27	50.20	H/SH	PILE	10	0		1967	75	80	2	complete, pencil-shaped point (7 facets), end cut straight, exhibit at Kierikki		7	Schulz 1997
P 1557	1200,79	1993,34	50.15	H/SH	LATH	20	0		200	19	17	3				Schulz 1997
P 1558	1201,25	1993,37	50.15	H/SH	NATURAL PIECE OF WOOD	0	0		267	24	17	3	branch			Schulz 1997
P 1559	1199,56	1993,16	50.21	H/SH	LATH	20	0		990	16	12	3	one end narrowed			Schulz 1997
P 1560	1201,11	1993,55	50.20	H/SH	LATH	20	0		318	20	12	2	one end narrowed, pointed, point charred		8	Schulz 1997
P 1561	1202,09	1993,82	50.24	SH-2	LATH	20	0		758	19	15	2				Schulz 1997
P 1562	1202,31	1993,61	50.27	SH-2	LATH	20	0		175	25	8	2	in two pieces			Schulz 1997
P 1563	1202,12	1993,64	50.24	SH-2	LATH	20	0		283	20	15	2	rounded end?			Schulz 1997
P 1564	1202,22	1993,35	50.26	SH-2	LATH	20	0		205	19	10	2	both ends worked, in two pieces			Schulz 1997
P 1565	1201,65	1993,26	50.21	H/SH	LATH	20	0		582	20	14	3	partly covered with fungi			Schulz 1997
P 1566	1200,67	1992,93	50.22	H/SH	WOODEN ARTEFACT	20	0		675	23	17	3	pointed end, in two pieces			Schulz 1997
P 1567	1200,40	1993,07	50.23	H/SH	NATURAL PIECE OF WOOD	0	0		265	15	15	3	branch, bark attached in places			Schulz 1997
P 1568	1200,01	1993,34	50.20	H/SH	NATURAL PIECE OF WOOD	0	20		222	50	19	3				Schulz 1997
P 1569	1200,37	1993,30	50.20	H/SH	LATH	20	0		290	24	8	3	cut from both ends, pine			Schulz 1997
P 1570	1200,39	1993,30	50.20	H/SH	LATH	20	0		110	15	6	3	pine			Schulz 1997
P 1571	1200,36	1993,33	50.20	H/SH	LATH	20	0		93	15	8	3	pine			Schulz 1997
P 1572	1200,50	1993,34	50.20	H/SH	LATH	20	0	25	110	19	7	3	pine			Schulz 1997
P 1573	1200,50	1993,32	50.20	H/SH	LATH	20	0	25	88	15	5	3	pine			Schulz 1997
P 1574	1200,91	1993,33	50.20	H/SH	WORKED WOOD	20	0	25	391	54	20	4	plank-shaped object, cross-section triangular, pine		9	Schulz 1997
P 1575	1200,72	1993,35	50.20	H/SH	NATURAL PIECE OF WOOD	0	0	5	180	20	16	3	branch, hardwood			Schulz 1997
P 1576	1198,56	1993,45	50.19	H/SH	NATURAL PIECE OF WOOD	0	0		35	39	6	4	pine			Schulz 1997
P 1577	1198,39	1993,53	50.19	H/SH	NATURAL PIECE OF WOOD	0	0		135	15	8	4	branch, pine			Schulz 1997
P 1578	1199,16	1993,32	50.20	H/SH	LATH	20	0		110	12	5	4	pine			Schulz 1997
P 1579	1199,83	1994,30	50.20	H/SH	WORKED WOOD	10	0	65	272	24	14	4	angled piece of wood			Schulz 1997
P 1580	1210,18	1990,11	50.11	SH	WOODEN ARTEFACT	20	0		299	30	16	2	pointed			Schulz 1997
P 1581	1209,25	1989,75	50.14	SH	PILE	10	0		1590	75	75	3	complete, both ends pointed, pencil-shaped point (6 facets), tapering end, point charred		10	Schulz 1997
P 1582	1209,80	1989,62	50.15	SH	STAKE	20	0		1202	31	31	2	pointed stake		11	Schulz 1997
P 1583	1208,33	1989,80	50.13	SH	LATH	20	0		1010	18	5	4	in ten pieces, pine			Schulz 1997
P 1584	1208,44	1989,78	50.13	SH	LATH	20	0		630	20	11	4	pine			Schulz 1997
P 1585	1208,13	1989,51	50.13	SH	LATH	20	0		120	11	5	4	in two pieces, pine			Schulz 1997
P 1586	1208,29	1989,52	50.13	SH	LATH	20	0		31	19	5	3	pine			Schulz 1997
P 1587	1208,25	1989,49	50.13	SH	LATH	20	0		61	20	10	3	pine			Schulz 1997
P 1588	1208,14	1989,33	50.13	SH	LATH	20	0		86	22	8	3	in two pieces, pine			Schulz 1997
P 1589	1208,09	1989,26	50.13	SH	LATH	20	0		172	18	8	2	pine			Schulz 1997
P 1590	1209,26	1989,52	50.13	SH	LATH	20	0		356	15	7	3	in two pieces, pine			Schulz 1997
P 1591	1208,62	1989,28	50.12	SH	LATH	20	0		252	18	9	2	in two pieces, pine			Schulz 1997
P 1592	1208,90	1989,72	50.13	SH	NATURAL PIECE OF WOOD	2	0		850	40	40	3	cut from both ends, pine			Schulz 1997
P 1593	1208,56	1989,46	50.13	SH	LATH	20	0		637	21	14	3	in two pieces, pine			Schulz 1997
P 1594	1209,15	1989,54	50.13	SH	LATH	20	0		590	20	9	3	in two pieces, pine			Schulz 1997

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 1595	1208,61	1989,32	50.12	SH	LATH	20	0		620	22	18	3	in two pieces, pine			Schulz 1997
P 1596	1208,60	1989,29	50.12	SH	NATURAL PIECE OF WOOD	10	0		250	12	12	4	broken, hardwood			Schulz 1997
P 1597	1208,80	1989,34	50.12	SH	LATH	20	0	46	188	24	7	3	fragment, pine			Schulz 1997
P 1598	1208,80	1989,34	50.12	SH	LATH	20	0	46	183	26	14	3	fragment, pine			Schulz 1997
P 1599	1209,18	1989,23	50.19	SH	NATURAL PIECE OF WOOD	0	0		133	15	14	3	branch, pine			Schulz 1997
P 1600	1209,12	1989,25	50.14	SH	LATH	20	0		487	25	25	3	in three pieces, pine			Schulz 1997
P 1601	1207,78	1988,96	50.15	SH	PILE	10	0		1701	78	75	2	complete, angular end, tapering point, exhibit at Kierikki		12	Schulz 1997
P 1602	1208,51	1989,22	50.12	SH	NATURAL PIECE OF WOOD	0	0		182	9	9	3	branch			Schulz 1997
P 1603	1208,66	1989,27	50.12	SH	LATH	20	0		387	14	8	4	in three pieces, pine			Schulz 1997
P 1604	1208,21	1988,96	50.13	SH	LATH	20	0		372	21	9	3	in two pieces, pine			Schulz 1997
P 1605	1208,55	1989,08	50.11	SH	LATH	20	0		125	17	9	3	in four pieces			Schulz 1997
P 1606	1170,77	2150.21	50.16		WOODEN ARTEFACT		0		505	72	9		boomerang', test pit, exhibit at Kierikki		166	Schulz 1997
P 1607	1209,10	1989,20	50.14	SH	LATH	20	10		382	17	9	4	in five pieces, pine			Schulz 1997
P 1608	1209,14	1989,20	50.14	SH	NATURAL PIECE OF WOOD	0	0	46	325	24	24	4	in three pieces, pine			Schulz 1997
P 1609	1208,87	1988,96	50.11	SH	LATH	20	0		387	25	10	4	in five pieces, pine			Schulz 1997
P 1610	1209,20	1988,12	50.14	SH	LATH	20	0	46	382	22	12	4	in four pieces, pine			Schulz 1997
P 1611	1208,90	1989,15	50.11	SH	LATH	20	0	46	740	22	9	4	in four pieces, pine			Schulz 1997
P 1612	1199,84	1993,34	50.25	1	LATH	20	0	25	246	20	9	2	one end carved, partly covered with fungi			Schulz 1997
P 1613	1199,70	1993,35	50.25	1	LATH	20	0	25	294	16	9	2				Schulz 1997
P 1614	1199,73	1993,40	50.25	1	LATH	20	0	25	322	16	10	3	in two pieces			Schulz 1997
P 1615	1199,90	1993,45	50.20	1	LATH	20	0	25	127	12	5	3				Schulz 1997
P 1616	1200,15	1993,32	50.20	1	LATH	20	0	360	67	12	11	3				Schulz 1997
P 1617	1200,25	1993,31	50.20	1	LATH	20	0	25	164	13	10	2	one end rounded, broken, pine			Schulz 1997
P 1618	1209,10	1989,30	50.14	SH	LATH	20	0	48	485	14	7	4	pine			Schulz 1997
P 1619	1170,15	2149,10	51.05	SH	LATH			131					test pit			Schulz 1997
P 1620	1170,27	2149,30	51.04	SH	LATH			78					test pit			Schulz 1997
P 1621	1208,40	1989,00	50.13	SH	LATH	20	0	48	274	12	10	3	pine			Schulz 1997
P 1622	1208,40	1988,95	50.13	SH	LATH	20	0	48	316	13	11	4	pine			Schulz 1997
P 1623	1208,20	1989,05	50.13	SH	NATURAL PIECE OF WOOD	0	0	48	110	12	16	4	branch, hardwood			Schulz 1997
P 1624	1208,30	1988,95	50.14	SH	NATURAL PIECE OF WOOD	0	0		93				branch/root			Schulz 1997
P 1625	1208,35	1988,95	50.14	SH	LATH	20	0	48	50	20	6	3	pine			Schulz 1997
P 1626	1208,50	1989,50	50.16	SH	LATH	20	0	33	80	10	6	3	pine			Schulz 1997
P 1627	1208,55	1989,00	50.16	SH	LATH	20	0	26	124	16	12	3	pine			Schulz 1997
P 1628	1208,60	1989,10	50.16	SH	LATH	20	0	30	62	14	9	3	pine			Schulz 1997
P 1629	1208,70	1989,00	50.16	SH	LATH	20	0	30	37	17	5	3	pine			Schulz 1997
P 1630	1209,10	1989,15	50.14	SH	LATH	20	0	65	249	13	10	4	in three pieces, pine			Schulz 1997
P 1631	1209,40	1989,30	50.11	SH	NATURAL PIECE OF WOOD	0	0	65	52	10	8	4	branch, in two pieces, hardwood			Schulz 1997
P 1632	1208,40	1989,32	50.14	SH	NATURAL PIECE OF WOOD	0	0	65	312	17	17	2	branch, bark attached, hardwood			Schulz 1997
P 1633	1207,94	1988,92	50.16	SH	PILE	10	0		1600	56	56	2	complete, tapering point, end cut and rounded, pine		13	Schulz 1997
P 1634	1209,80	1989,58	50.15	SH	LATH	20	3		58	30	30	2	other end fragmented, pine			Schulz 1997
P 1635	1209,62	1989,47	50.15	SH	LATH	20	10		227	25	10	3	in two pieces, pine			Schulz 1997
P 1636	1209,68	1989,48	50.15	SH	LATH	20	0		213	21	18	2	pine			Schulz 1997
P 1637	1208,95	1991,10	50.12	SH	LATH	20	0		632	19	11	4	one end oblique, broken, pine			Schulz 1997
P 1638	1209,68	1991,24	50.14	SH	LATH	20	0		115	21	9	4	fragmented, pine			Schulz 1997
P 1639	1210,15	1990,14	50.14	SH	LATH	20	0		239	22	12	2	one end bent, pine			Schulz 1997
P 1640	1209,96	1990,94	50.13	SH	LATH	20	0		110	17	11	4	in two pieces, pine			Schulz 1997
P 1641	1210,13	1990,45	50.14	SH	NATURAL PIECE OF WOOD	0	0		357	11	11	4	branch, hardwood			Schulz 1997
P 1642	1210,28	1990,02	50.15	SH	LATH	20	0		346	19	10	4	fragmented, pine			Schulz 1997
P 1643	1211,50	1990,05	50.15	SH	NATURAL PIECE OF WOOD	10	0		948	35	35	3	softwood			Schulz 1997
P 1644	1211,08	1990,04	50.16	SH	NATURAL PIECE OF WOOD	0	0		223	75	33	4	in two pieces, pine			Schulz 1997
P 1645	1211,10	1990,44	50.17	SH	WORKED WOOD	10	0		84	75	25	4	one end worked, pine			Schulz 1997
P 1646 TR	1170,35	2149,57	51.12		LATH			104					test pit		14	Schulz 1997
P 1647 TR	1170,30	2150,00	51.13	SH	LATH			75					test pit			Schulz 1997
P 1648	1210,65	1989,61	50.15	SH	LATH	20	0		434	12	11	4	in three pieces, pine			Schulz 1997
P 1649	1211,01	1989,78	50.18	SH	NATURAL PIECE OF WOOD	0	0		320	10	10	4	branch, in three pieces, hardwood			Schulz 1997
P 1650	1210,71	1989,56	50.15	SH	LATH	20	2		420	20	7	4	the other end rounded, broken, pine			Schulz 1997
P 1651	1210,68	1989,64	50.15	SH	LATH	20	0		219	19	12	4	pine			Schulz 1997
P 1652	1210,61	1989,64	50.15	SH	WEDGE		0		727	79	79	2	complete, wedge-shaped point, end cut straight, wedge, pine, dendro sample FIO3906=19BC		15	Schulz 1997
P 1653	1210,42	1989,23	50.14	SH	LATH	20	0		452	20	13	3	in three pieces, pine			Schulz 1997
P 1654	1210,50	1989,38	50.14	SH	PILE	10	0		560	66	66	2	peg-shaped end fragment, point missing after conservation, pine		16	Schulz 1997
P 1655	1210,43	1989,19	50.14	SH	PILE	10	0		950	83	83	3	point fragment, tapering point, end cut straight, dendro sample=hardwood		17	Schulz 1997
P 1656	1210,53	1989,14	50.14	SH	WOODEN ARTEFACT	20	0		696	84	43	2	one end pointed, triangular cross-section, two holes attached, artificial or natural? pine, sledge runner fragment or something else		18	Schulz 1997
P 1657	1210,80	1989,31	50.14	SH	LATH	20	0		290	19	6	4	in seven pieces, pine			Schulz 1997
P 1658	1210,70	1989,19	50.14	SH	NATURAL PIECE OF WOOD	10	0		740	75	55	3				Schulz 1997
P 1659	1211,26	1989,11	50.22	SH	LATH	20	0		333	21	10	3	pine			Schulz 1997
P 1660	1210,20	1987,90	50.16	SH	NATURAL PIECE OF WOOD	0	0		257	9	9	3	branch, hardwood			Schulz 1997
P 1661	1210,82	1989,00	50.14	SH	LATH	20	0		264	14	9	3	in two pieces, pine			Schulz 1997
P 1662	TR															Schulz 1997
P 1663	1211,19	1989,72	50.20	SH	LATH	20	0		350	30	16	4	in four pieces, pine			Schulz 1997
P 1664	1211,92	1989,44	50.20	SH	LATH	20	0		564	15	17	4	in four pieces, pine			Schulz 1997
P 1665	1211,52	1989,45	50.19	SH	LATH	20	0	32	213	22	9	3	pine			Schulz 1997
P 1666	1211,89	1989,60	50.19	SH	LATH	20	0		412	17	11	3	in three pieces, pine			Schulz 1997
P 1667	1211,12	1989,58	50.12	SH	LATH	20	0		362	23	14	3	pine			Schulz 1997
P 1668	1212,04	1989,58	50.19	SH	LATH	20	0		229	18	10	3	pine			Schulz 1997
P 1669	1211,93	1989,60	50.19	SH	LATH	20	0		347	13	13	3	pine			Schulz 1997
P 1670	1212,36	1989,92	50.17	SH	LATH	20	0		198	23	9	3	pine			Schulz 1997
P 1671	1212,90	1989,90	50.17	SH	NATURAL PIECE OF WOOD	0	0	36	161	9	9	3	branch, hardwood			Schulz 1997
P 1672	1211,70	1989,48	50.19	SH	LATH	20	0		408	18	12	3	in two pieces, pine			Schulz 1997
P 1673	1211,27	1989,97	50.17	SH	PILE	10	0		595	39	39	4	both ends pointed, pine			Schulz 1997
P 1674	1211,60	1988,95	50.17	SH	LATH	20	0	36	336	34	14	3	pine			Schulz 1997
P 1675	1212,06	1989,05	50.17	SH	LATH	20	0		235	20	8	3	pine			Schulz 1997
P 1676	1211,38	1989,18	50.28	SH	PILE	10	0		942	70	70	4	point cut from trench section, pine			Schulz 1997
P 1677	1211,00	1990,23	50.15	SH	LATH	20	0		330	20	50	3	in four pieces, pine			Schulz 1997
P 1678	1211,10	1989,15	50.17	SH	WORKED WOOD	20	0		209	15	8	3	one end pointed, pine			Schulz 1997
P 1679	1211,20	1989,16	50.17	SH	LATH	20	0		364	17	11	3	pine			Schulz 1997
P 1680	1211,30	1989,19	50.17	SH	LATH	20	0		112	17	5	3	pine			Schulz 1997
P 1681	1211,18	1989,10	50.22	SH	PILE	10	0		325	62	31	5	peg-shaped point, end cut straight, pine			Schulz 1997
P 1682	1211,62	1989,30	50.14	SH	LATH	10	0		614	19	9	4	in four pieces, pine			Schulz 1997
P 1683	1211,88	1989,21	50.25	SH	LATH	20	0		1109	22	17	4	both ends broken, pine			Schulz 1997
P 1684	1210,98	1988,79	50.15	SH	LATH	20	0		536	18	9	3	complete, pine			Schulz 1997
P 1685	1210,85	1988,65	50.15	SH	LATH	20	0		265	17	11	3	pine			Schulz 1997
P 1686	1211,12	1988,74	50.23	SH	PILE	10	0		1370	72	35	4	end fragment, point in trench section, end cut straight, in several pieces, hardwood		19	Schulz 1997
P 1687	1211,80	1988,90	50.17	SH	LATH	20	0	36	630	19	19	4	in two pieces, pine			Schulz 1997
P 1688	1211,60	1988,85	50.17	SH	LATH	20	0	36	378	20	10	4	pine			Schulz 1997
P 1689	1211,05	1989,11	50.22	SH	PILE	10	0		1415	77	77	3	pencil-shaped point (7 facets), one end recovered			Schulz 1997
P 1690	1211,36	1989,39	50.24	sh	PILE	10	0		1570	88	88	4	pencil-shaped point (6 facets), bark attached, hardwood			Schulz 1997
P 1691	1212,36	1989,96	50.15	SH	LATH	20	0		264	22	14	4	pine			Schulz 1997
P 1692	1211,79	1989,69	50.19	SH	PILE	10	0		990	59	59	4	pencil-shaped point (4 facets), in trench section			Schulz 1997
P 1693	1211,59	1988,76	50.17	SH	PILE	10	0		860	89	89	3	tapering point, in trench section, point missing after conservation		20	Schulz 1997
P 1694	1212,21	1989,15	50.25	SH	NATURAL PIECE OF WOOD	0	0		179	8	8	3	branch			Schulz 1997
P 1695	1211,70	1989,33	50.19	SH	PILE	10	0		1325	78	78	2	point fragment, tapering point, bark attached, deformed in water, hardwood		21	Schulz 1997
P 1696	1211,72	1988,93	50.17	SH	WORKED WOOD	10	0	36	458	20	20	3	partly worked			Schulz 1997
P 1697	1211,82	1988,99	50.17	SH	LATH	20	0	36	101	14	13	3	point, pine			Schulz 1997
P 1698	1211,70	1988,99	50.17	SH	LATH	20	0	36	149	15	15	4	pine			Schulz 1997
P 1699	1212,06	1989,09	50.17	SH	LATH	20	0	36	270	21	11	4	pine			Schulz 1997
P 1700	1211,15	1988,70	50.17	SH	LATH	20	0	36	90	22	10	4	pine			Schulz 1997
P 1701	1211,62	1988,85	50.17	SH	NATURAL PIECE OF WOOD	0	0	36	261	12	12	3	branch, pine			Schulz 1997
P 1702	1212,05	1988,95	50.24	SH	LATH	20	0	36	180	12	6	4	pine			Schulz 1997
P 1703	1211,68	1988,70	50.24	SH	PILE	10	0		810	71	71	3	tapering point, in trench section		22	Schulz 1997
P 1704	1211,82	1988,71	50.20	SH	PILE	10	0		580	90	90	3	point in trench section, end cut straight, bark attached, complete, hardwood			Schulz 1997
P 1705	1211,82	1988,68	50.20	SH	LATH	20	0		173	18	18	4	fragment, pine			Schulz 1997
P 1706	1211,68	1988,68	50.20	SH	LATH	20	0		379	20	9	4	pine			Schulz 1997
P 1707	1211,58	1988,70	50.20	SH	LATH	20	0	36	165	15	10	3	pine			Schulz 1997
P 1708	1211,85	1988,66	50.20	SH	LATH	20	0		465	20	5	4	pine			Schulz 1997
P 1709	1211,92	1988,65	50.20	SH	LATH	20	0	36	130	17	13	3	pine			Schulz 1997
P 1710	1211,92	1988,66	50.20	SH	LATH	20	0	36	170	12	9	3	pine			Schulz 1997
P 1711	1212,01	1988,72	50.20	SH	LATH	20	0	36	186	10	10	3	chisel-shaped point, quadrangular cross-section, pine			Schulz 1997

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 1712	1212,04	1988,64	50.20	SH	LATH	20	0		223	23	10	3	pine			Schulz 1997
P 1713	1211,90	1988,64	50.20	SH	NATURAL PIECE OF WOOD	10	0		650	26	15	4				Schulz 1997
P 1714	1211,12	1990,43	50.17	SH	PILE	20	0		682	69	45	3	segmented cross-section, two grooves, angular point fragment, dendro sample FIO3908=16BC		23	Schulz 1997
P 1715	1211,83	1990,61	50.19	SH	LATH	20	0		402	29	10	3	pine			Schulz 1997
P 1716	1211,54	1990,78	50.16	SH	LATH	20	0		232	17	8	4	in five pieces, pine			Schulz 1997
P 1717	1211,42	1990,77	50.16	SH	LATH	20	0		571	25	13	2	pine			Schulz 1997
P 1718	1211,52	1990,79	50.16	SH	LATH	20	0		195	18	10	4	in six pieces, pine			Schulz 1997
P 1719	1211,79	1990,79	50.12	SH	LATH	20	0		394	23	10	3	pine			Schulz 1997
P 1720	1211,93	1990,76	50.19	SH	LATH	20	0		731	24	12	3	in three pieces, pine			Schulz 1997
P 1721	1211,44	1990,37	50.17	SH	LATH	20	0		1083	20	11	4	pine			Schulz 1997
P 1722	1212,46	1990,72	50.21	SH	LATH	20	0		299	23	6	4	pine			Schulz 1997
P 1723	1211,56	1990,33	50.16	SH	PILE	10	0		295	68	68	3	point in trench section, chisel-shaped end			Schulz 1997
P 1724	1211,91	1991,00	50.18	SH	LATH	20	0		670	21	10	4	in six pieces			Schulz 1997
P 1725	1209,83	1988,88	50.16	SH	PILE	10	0		945	29	29	3	point in trench section, end cut straight			Schulz 1997
P 1726	1209,79	1988,87		SH	LATH	20	0		465	22	14	4	in three pieces			Schulz 1997
P 1727	1210,53	1988,69	50.15	SH	LATH	20	0		470	21	11	4				Schulz 1997
P 1728	1210,61	1988,82	50.15	SH	LATH	20	0		769	22	15	4				Schulz 1997
P 1729	1212,37	1989,92	50.15	SH	WORKED WOOD	10	0	36	253	46	53	3	one end carved, possibly split, poor preservation		24	Schulz 1997
P 1730	1212,31	1990,77	50.20	SH	PILE	10	0		607	58	58	3	point fragment, pencil-shaped point (5 facets), concave tool marks, in trench section		25	Schulz 1997
P 1731	1212,55	1991,36	50.19	SH	LATH	20	0		388	23	9	4	in five pieces			Schulz 1997
P 1732	1212,47	1991,26	50.19	SH	LATH	20	0		362	24	5	4	in two pieces, pine			Schulz 1997
P 1733	1211,28	1990,92	50.17	SH	LATH	20	0		1520	29	17	4	triangular cross-section, pine			Schulz 1997
P 1734	1212,42	1991,35	50.19	SH	LATH	20	0		240	28	19	5	pine			Schulz 1997
P 1735	1212,45	1991,42	50.19	SH	NATURAL PIECE OF WOOD	0	0		138	13	13	4	branch			Schulz 1997
P 1736	1212,62	1990,82	50.19	SH	LATH	20	0	36	31	22	11	3				Schulz 1997
P 1737	1212,62	1990,81	50.119	SH	LATH	20	0	36	142	17	9	3				Schulz 1997
P 1738	1212,09	1991,09	50.18	SH	NATURAL PIECE OF WOOD	10	2		410	35	35	3				Schulz 1997
P 1739	1211,95	1991,07	50.18	SH	WORKED WOOD	10	0		262	16	16	3				Schulz 1997
P 1740	1211,30	1991,18	50.17	SH	LATH	20	0		675	24	14	4	pine			Schulz 1997
P 1741	1211,50	1991,40	50.17	SH	LATH	20	0		1250	17	9	4	entirely broken			Schulz 1997
P 1742	1211,98	1991,52	50.19	SH	LATH	20	0		470	15	9	4	in five pieces			Schulz 1997
P 1743	1211,96	1991,60	50.19	SH	LATH	20	0	36	194	23	10	5				Schulz 1997
P 1744	1211,91	1991,56	50.19	SH	NATURAL PIECE OF WOOD	0	0		679	30	30	3	branch			Schulz 1997
P 1745	1211,06	1991,15	50.16	SH	LATH	20	0		900	18	10	5				Schulz 1997
P 1746	1212,44	1991,34	50.19	SH	PILE	10	0		445	50	50	4	point fragment, angular tapering point, end in trench section		26	Schulz 1997
P 1747	1211,57	1990,68	50.16	SH	NATURAL PIECE OF WOOD	0	0		260	20	13	5	branch			Schulz 1997
P 1748	1211,74	1990,75	50.16	SH	NATURAL PIECE OF WOOD	10	0		600	38	38	3	branch, possibly split			Schulz 1997
P 1749	1211,77	1990,62	50.17	SH	LATH	20	0		450	21	21	4	pine			Schulz 1997
P 1750	1211,38	1990,79	50.16	SH	LATH	20	0		862	21	14	3				Schulz 1997
P 1751	1211,75	1991,05	50.17	SH	LATH	20	0		613	21	8	4	pine			Schulz 1997
P 1752	1211,45	1991,48	50.18	SH	NATURAL PIECE OF WOOD	0	0		340	95		5				Schulz 1997
P 1753	1211,05	1991,59	50.17	SH	LATH	20	0		238	18	15	4	fragmented, pine			Schulz 1997
P 1754	1211,10	1991,78	50.16	SH	LATH	20	0		220	28	13	4	fragmented, pine			Schulz 1997
P 1755	1210,27	1991,49	50.15	SH	LATH	20	0		1342	21	13	4	fragmented, pine			Schulz 1997
P 1756	1210,80	1992,00	50.15	SH	LATH	20	0		230	21	14	4	fragmented, pine			Schulz 1997
P 1757	1210,82	1992,86	50.15	SH	LATH	20	0		1400	19	14	4	complete, pine			Schulz 1997
P 1758	1212,37	1991,55	50.22	SH	LATH	20	0		385	13	13	4	angular cross-section, pine			Schulz 1997
P 1759	1212,26	1991,50	50.22	SH	LATH	20	0		452	15	10	5	pine			Schulz 1997
P 1760	1212,16	1991,45	50.19	SH	WORKED WOOD	10	0		750	35	24	5	pointed, bent point			Schulz 1997
P 1761	1211,84	1991,65	50.21	SH	LATH	20	0		245	15	6	4	pine			Schulz 1997
P 1762	1211,75	1991,74	50.17	SH	LATH	20	0		795	20	9	4	pine			Schulz 1997
P 1763	1212,05	1991,82	50.19	SH	LATH	20	5	22	320	22	8	4	pine			Schulz 1997
P 1764	1212,01	1991,66	50.19	SH	PILE	10	0		970	55	55	5	point in trench section, end cut straight			Schulz 1997
P 1765	1212,67	1991,99	50.18	SH	PILE	10	0		170	30	30	5	tapering point, end cut straight			Schulz 1997
P 1766	1212,50	1991,90	50.18	SH	LATH	20	0	36	296	19	21	4	pine			Schulz 1997
P 1767	1212,39	1992,20	50.17	SH	WOODEN ARTEFACT	20	0		225	3	3	3	both end pointed, one end worn-out			Schulz 1997
P 1768	1212,03	1992,23	50.18	SH	LATH	20	0		732	19	22	3	in two pieces, pine			Schulz 1997
P 1769	1209,44	1992,24	50.15	SH	PILE	10	0		602	58	35	5	tapering point			Schulz 1997
P 1770	1209,44	1992,03	50.15	SH	LATH	20	0		182	15	9	3				Schulz 1997
P 1771	1209,54	1992,09	50.15	SH	NATURAL PIECE OF WOOD	0	0		200	70	?	5				Schulz 1997
P 1772	1209,63	1992,05	50.15	SH	NATURAL PIECE OF WOOD	10	0		400	33	?	5				Schulz 1997
P 1773	1210,18	1991,54	50.15	SH	NATURAL PIECE OF WOOD	0	0		309	38	27	3				Schulz 1997
P 1774	1210,14	1991,57	50.15	SH	LATH	20	0		140	8	8	3	quadrangular cross-section			Schulz 1997
P 1775	1210,61	1992,37	50.15	SH	LATH	20	0		352	26	12	4				Schulz 1997
P 1776	1210,77	1992,26	50.18	SH	LATH	20	0		292	22	7	4				Schulz 1997
P 1777	1210,87	1992,25	50.18	SH	LATH	20	0		525	19	9	4				Schulz 1997
P 1778	1209,85	1990,45	50.14	SH	NATURAL PIECE OF WOOD	0	0	120	165	20	20	4	branch			Schulz 1997
P 1779	1211,41	1992,41	50.18	SH	LATH	20	0		245	14	8	5				Schulz 1997
P 1780	1210,40	1991,80	50.15	SH	LATH	20	0	340	399	30	11	4				Schulz 1997
P 1781	1210,01	1992,51	50.10	SH	LATH	20	0		543	20	9	4				Schulz 1997
P 1782	1210,03	1992,71	50.11	SH	LATH	20	0		690	21	9	3				Schulz 1997
P 1783	1211,11	1992,60	50.13	SH	LATH	20	0		168	19	10	3	in two pieces			Schulz 1997
P 1784	1211,58	1992,50	50.17	SH	LATH	20	0		499	15	10	3	in two pieces			Schulz 1997
P 1785	1211,50	1992,90	50.16	SH	LATH	20	0		260	13		5	halved			Schulz 1997
P 1786	1211,80	1992,97	50.16	SH	LATH	20	0		256	17	10	5				Schulz 1997
P 1787	1211,64	1992,36	50.17	SH	LATH	20	0		515	16	11	4				Schulz 1997
P 1788	1211,81	1992,63	50.15	SH	NATURAL PIECE OF WOOD	10	0		518	27	27	3				Schulz 1997
P 1789	1212,38	1992,55	50.15	SH	LATH	20	0		557	21	10	3				Schulz 1997
P 1790	1212,34	1992,67	50.16	SH	LATH	20	0		642	14	11	3				Schulz 1997
P 1791	1212,60	1992,95	50.10	SH	LATH	20	0		125	23	18	4	pointed lath			Schulz 1997
P 1792	1212,73	1992,99	50.16	SH	WORKED WOOD	10	0		220	22	51	4	one end cut			Schulz 1997
P 1793	1213,88	1993,04	50.15	SH	LATH	20	0		572	21	15	3				Schulz 1997
P 1794	1212,81	1993,23	50.17	SH	LATH	20	0		105	14	9	3				Schulz 1997
P 1795	1212,85	1993,24	50.18	SH	NATURAL PIECE OF WOOD	0	0		104	25	25	3	branch			Schulz 1997
P 1796	1212,80	1993,30	50.17	SH	NATURAL PIECE OF WOOD	0	0		114	18	18	4				Schulz 1997
P 1797	1211,81	1992,64	50.15	SH	PILE	10	0		1480	65	65	4	point fragment, pencil-shaped point (6-7 facets), tapering tip, deformed after conservation		27	Schulz 1997
P 1798	1211,93	1993,07	50.15	SH	NATURAL PIECE OF WOOD	0	0		280	28	28	4				Schulz 1997
P 1799	1211,39	1993,12	50.15	SH	LATH	20	0		276	14	10	3				Schulz 1997
P 1800	1211,60	1993,21	50.16	SH	LATH	20	0		174	16	15	3				Schulz 1997
P 1801	1211,64	1993,25	50.16	SH	LATH	20	0		290	16	7	3				Schulz 1997
P 1802	1211,17	1993,18	50.14	SH	PILE	10	0		412	76	76	4	peg-shaped point, cut and rounded end			Schulz 1997
P 1803	1211,77	1993,15	50.16	SH	PILE	10	0		698	67	67	4	complete, peg-shaped end, tapering point		28	Schulz 1997
P 1804	1211,98	1993,14	50.15	SH	PILE	10	0		850	75	75	3	chisel-shaped point, rounded end			Schulz 1997
P 1805	1212,54	1993,41	50.17	SH	LATH	20	0		472	26	9	3				Schulz 1997
P 1806	1212,75	1993,61	50.17	SH	LATH	20	0		402	15	10	3			29	Schulz 1997
P 1807	1210,81	1993,12	50.11	SH	PILE	10	0		1960	74	74	1	pencil-shaped point (7 facets)			Schulz 1997
P 1808	1212,40	1993,71	50.15	SH	PILE	10	0		465	91	91	3	end fragment, end cut straight, dedro sample, hardwood		30	Schulz 1997
P 1809	1210,92	1993,22	50.13	SH	LATH	20	0		192	12	6	3			31	Schulz 1997
P 1810	1211,05	1993,36	50.14	SH	LATH	20	0		195	26	18	2	triangular cross-section		32	Schulz 1997
P 1811	1210,80	1993,21	50.12	SH	NATURAL PIECE OF WOOD	0	0		259	31	31	3	branch, hardwood			Schulz 1997
P 1812	1210,81	1993,43	50.13	SH	LATH	20	0		216	8	7	2				Schulz 1997
P 1813	1211,20	1993,47	50.16	SH	NATURAL PIECE OF WOOD	0	0		172	10	10	3	branch			Schulz 1997
P 1814	1211,29	1993,48	50.16	SH	LATH	20	0		73	9	5	3				Schulz 1997
P 1815	1210,95	1993,52	50.14	SH	NATURAL PIECE OF WOOD	0	0		312	12	12	4	branch			Schulz 1997
P 1816	1210,82	1993,29	50.11	SH	LATH	20	0	36	94	9	4	4				Schulz 1997
P 1817	1211,18	1993,36	50.15	SH	PILE	10	0		1880	69	69	4	excavator damages, pencil-shaped point (7 facets)			Schulz 1997
P 1818	1211,75	1993,68	50.12	SH	PILE	10	0		1190	59	59	4	pencil-shaped point (4 facets), cut from trench section			Schulz 1997
P 1819	1211,68	1993,85	50.16	SH	NATURAL PIECE OF WOOD	10	0		440	70	60	4	curved, quadrangular cross-section, possibly worked		33	Schulz 1997
P 1820	1212,08	1994,01	50.18	SH	STAKE	10	0		820	65	47	3	both end pointed, deformed in water?		34	Schulz 1997
P 1821	1210,86	1994,42	50.14	SH	PILE	10	0		1280	52	42	3	point fragment, quadrangular cross-section, rounded tip, number does not match, pile end fragment at Kierikki		35	Schulz 1997
P 1822	1209,44	1992,83	50.07	SH	PILE	10	0		1840	93	93	4	have been complete, chisel-shaped point, oblique end, worm holes, end missing after conservation		36	Schulz 1997
P 1823	1209,77	1992,97	50.08	SH	LATH	20	0		695	18	10	3	bulges in both edges			Schulz 1997
P 1824	1210,01	1993,20	50.12	SH	LATH	20	0		750	24	8	3				Schulz 1997
P 1825	1210,69	1993,59	50.17	SH	NATURAL PIECE OF WOOD	0	5		1010	25	25	4	branch			Schulz 1997
P 1826	1210,98	1993,97	50.15	SH	LATH	20	0		665	53	6	3	in four pieces			Schulz 1997
P1827	1209,28	1993,81	50.14	SH	LATH	20	0		480	25	13	3				Schulz 1997
P 1828	1208,58	1993,11	50.07	SH	WORKED WOOD	10	0		180	13	8	4	paddle-shaped object			Schulz 1997
P 1829	1208,83	1993,84	50.05	SH	LATH	20	0		184	39	13	4				Schulz 1997

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wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 1830	1209,44	1992,83	50.07	SH	NATURAL PIECE OF WOOD	10	2		4020	145	72	3	a, b, c, d bags, c bears cut-marks		37	Schulz 1997
P 1831	1212,52	1994,36	50.17	SH	LATH	20	15		468	20	13	2				Schulz 1997
P 1832	1211,18	1993,98	50.17	SH	PILE	10	0		1615	58	58	4	complete, point quadrangular in cross-section, end cut straight, both ends fragmentary after conservation		38	Schulz 1997
P 1833	1212,59	1994,43	50.17	SH	PILE	10	0		387	82	71	4	chisel-shaped point, end in trench section			Schulz 1997
P 1834	1211,28	1988,59	50.20	SH	LATH	20	0		278	16	12	4				Schulz 1997
P 1835	1211,18	1988,65	50.20	SH	LATH	20	0		390	21	10	3				Schulz 1997
P 1836	1211,50	1988,55	50.20	SH	NATURAL PIECE OF WOOD		0		478	74	28	3	halved, hooked ends, deformed in water?		39	Schulz 1997
P 1837	1211,60	1988,58	50.20	SH	LATH	20	0	36	300	11	10	4	in three pieces			Schulz 1997
P 1838	1211,98	1988,65	50.20	SH	PILE	10	0		359	68	58	4	tapering point			Schulz 1997
P 1839	1212,05	1988,72	50.20	SH	LATH	20	0	36	704	24	9	3	groove in the surface			Schulz 1997
P 1840	1211,32	1988,83	50.17	SH	PILE	10	0	36	1200	60	60	3	point fragment, tapering point, fungi		40	Schulz 1997
P 1841	1211,33	1988,86	50.17	SH	PILE	10	0	36	920	80	62	3	end fragment, blunt end		41	Schulz 1997
P 1842	1211,27	1988,92	50.17	SH	PILE	10	0		685	52	34	4	chisel-shaped point			Schulz 1997
P 1843	1211,42	1988,99	50.17	SH	NATURAL PIECE OF WOOD	20	0	36	234	18	13	3	branch		42	Schulz 1997
P 1844	1211,32	1988,99	50.17	SH	LATH	20	0	36	339	24	9	3				Schulz 1997
P 1845	1211,10	1988,82	50.17	SH	LATH	20	0		300	17	9	3				Schulz 1997
P 1846	1211,27	1988,95	50.17	SH	PILE	10	0		112	75	61	3	point fragment, pencil-shaped point (9 facets), badly damaged after conservation		43	Schulz 1997
P 1847	1194,09	1999,65	50.29	H/SH	WORKED WOOD	10	1		327	38	35	2	both ends cut, pine			Schulz 1997
P 1848	1193,97	1999,65	50.31	H/SH	LATH	20	1		341	23	8	3	two fragments			Schulz 1997
P 1849	1194,04	2001,05	50.29	H/SH	PILE	10	1		511	77	61	4	point, quadrangular cross-section, cut in trench section, hardwood			Schulz 1997
P 1850	1194,41	2000,95	50.30	H/SH	WORKED WOOD	10	1		403	46	46	3	end cut straight, cut in trench section, pine			Schulz 1997
P 1851	1194,40	2000,09	50.29	H/SH	WORKED WOOD	10	1		324	73	42	2	deformed in water, possibly worked, charred, pine, firewood?		44	Schulz 1997
P 1852	1194,40	1999,64	50.31	H/SH	NATURAL PIECE OF WOOD	10	1		244	73	54	3	pine			Schulz 1997
P 1853	1193,86	1999,21	50.29	H/SH	LATH	20	1		1027	19	11	2				Schulz 1997
P 1854	1193,68	2000,77	50.29	H/SH	LATH	20	1		1483	19	13	3	cut in trench section			Schulz 1997
P 1855	1194,21	1999,52	50.28	H/SH	PILE	20	1		822	109	93	2	complete, pencil-shaped point (7 angles), end cut straight and rounded in the edges, pine, dendro sample FIO 3903=1BC		45	Schulz 1997
P 1856	1194,89	2001,07	50.30	H/SH	PILE	10	1		614	55	39	4	possibly peg-shaped point, hardwood			Schulz 1997
P 1857	1194,04	2000,40	50.29	H/SH	PILE	10	1		1613	124	93	4	end fragment, bark attached, end cut straight, partly notched, birch, almost completely degraded		46	Schulz 1997
P 1858	1194,90	2000,90	50.26	H/SH	WORKED WOOD	10	2		358	28	24	2	wedge-shaped end, pine		47	Schulz 1997
P 1859	1194,73	2000,73	50.27	H/SH	PILE	10	1		487	84	73	4	peg-shaped point, end charred, hardwood			Schulz 1997
P 1860	1211,63	1989,46	50.13	SH	WOODEN ARTEFACT	20	2		131	34	7	3	perforated, thin, trapezium-shaped artefact, pine		48	Schulz 1997
P 1861	1194,75	2000,67	50.26	H/SH	NATURAL PIECE OF WOOD	10	1		458	69	52	2	possibly cut branch, pine			Schulz 1997
P 1862	1194,01	1999,50	50.29	H/SH	PILE	10	1		866	90	78	3	tapering point, end cut straight, binding groove, hardwood			Schulz 1997
P 1863	1193,60	1998,74	50.29	H/SH	PILE	10	1		821	70	63	3	wedge-shaped point, chisel-shaped end, bark attached, birch			Schulz 1997
P 1864	1193,98	1999,12	50.29	H/SH	LATH	20	1		352	11	7	2				Schulz 1997
P 1865	1194,09	1999,17	50.31	H/SH	LATH	20	1		1074	27	10	2	in four fragments, knothole			Schulz 1997
P 1866	1194,10	1999,26	50.28	H/SH	WORKED WOOD	10	2		105	88	2	3	pine bark, posssibly perforated			Schulz 1997
P 1867	1193,52	1998,55	50.29	H/SH	PILE	10	1		1942	99	98	4	edgy point, end cut straight, bark attached, birch			Schulz 1997
P 1868	1194,87	1999,51	50.22	H/SH	PILE	10	1		1206	87	63	4	tapering point, end in trench section, hardwood			Schulz 1997
P 1869	1193,54	1998,63	50.29	H/SH	NATURAL PIECE OF WOOD	10	1		470	35	10	5	badly decomposed, possibly cut, hardwood			Schulz 1997
P 1870	1193,91	1998,79	50.29	H/SH	LATH	20	1		144	16	6	2				Schulz 1997
P 1871	1194,60	1999,13	50.31	H/SH	LATH	20	1		176	12	9	2				Schulz 1997
P 1872	1194,74	1999,32	50.31	H/SH	LATH	20	1		500	13	11	2				Schulz 1997
P 1873	1194,32	1998,83	50.30	H/SH	LATH	20	1		1453	24	16	2	in two fragments, oblique end		49	Schulz 1997
P 1874	1194,74	1999,56	50.30	H/SH	LATH	20	1		475	24	9	3				Schulz 1997
P 1875	1194,93	1999,46	50.31	H/SH	LATH	20	1		275	16	11	2	one end oblique			Schulz 1997
P 1876	1194,82	1999,26	50.30	H/SH	LATH	20	1		327	20	8	2	one end oblique			Schulz 1997
P 1877	1194,70	1999,20	50.30	H/SH	LATH	20	1		375	15	11	2	one end oblique			Schulz 1997
P 1878	1194,95	1999,30	50.31	H/SH	PILE	10	1		272	56	43	3	point fragment, charred, pine, NW shore		50	Schulz 1997
P 1879	1195,08	2000,06	50.31	H/SH	NATURAL PIECE OF WOOD	10	1		484	68	22	4	possibly worked, pine		51	Schulz 1997
P 1880	1194,89	1999,52	50.22	H/SH	LATH	20	1		152	17	16	2				Schulz 1997
P 1881	1194,64	1998,90	50.30	H/SH	WORKED WOOD	10	1		708	21	19	2	both ends pointed, pine		52	Schulz 1997
P 1882	1194,20	1999,09	50.30	H/SH	NATURAL PIECE OF WOOD	1	2		382	40	35	2	deformed in water, pine		53	Schulz 1997
P 1883	1194,26	1999,16	50.30	H/SH	LATH	20	1		147	10	7	2				Schulz 1997
P 1884	1195,00	2000,80	50.33	H/SH	WORKED WOOD	10	1		563	132	94	2	wedge-shaped object, thick piece, end cut straight			Schulz 1997
P 1885	1194,99	2000,74	50.30	H/SH	LATH	20	1		453	29	11	2				Schulz 1997
P 1886	1195,59	1999,62	50.37	H/SH	WOODEN ARTEFACT	20	1		127	30	8	3	possibly charred, cut-marks?			Schulz 1997
P 1887	1194,78	2000,67	50.26	H/SH	WORKED WOOD	10	1		902	47	35	1	halved and trimmed, hardwood			Schulz 1997
P 1888	1194,76	2000,57	50.25	H/SH	PILE	10	1		1037	83	72	3	complete, pencil-shaped point (6 facets), end cut straight, hardwood		54	Schulz 1997
P 1889	1195,01	2000,71	50.25	H/SH	LATH	20	1		502	21	16	2	oblique end, binding depression			Schulz 1997
P 1890	1195,12	2000,65	50.27	H/SH	PILE	10	1		1072	65	58	4	tapering point, partly decompose, hardwood			Schulz 1997
P 1891	1194,12	1999,91	50.27	H/SH	LATH	20	1		663	19	9	1	rounded end			Schulz 1997
P 1892	1194,50	2000,36	50.29	H/SH	LATH	20	2		261	14	13	2	triangular cross-section			Schulz 1997
P 1893	1194,37	2000,16	50.29	H/SH	PILE	10	1		1074	77	65	4	tapering point, notched, end cut straight, hardwood			Schulz 1997
P 1894	1194,43	2000,27	50.29	H/SH	LATH	20	2		188	16	11	3				Schulz 1997
P 1895	1194,46	2000,28	50.26	H/SH	LATH	20	1		165	24	12	3				Schulz 1997
P 1896	1194,38	2000,28	50.25	H/SH	WORKED WOOD	10	2		208	39	26	2	wedge-shaped point, halved end, cut marks, pine			Schulz 1997
P 1897	1194,52	2000,21	50.25	H/SH	LATH	20	2		279	23	10	2	oblique end			Schulz 1997
P 1898	1194,71	2000,48	50.24	H/SH	LATH	20	1		214	15	14	2				Schulz 1997
P 1899	1194,69	2000,12	50.30	H/SH	PILE	10	1		730	86	75	5	peg-shaped point, partly decomposed hardwood			Schulz 1997
P 1900	1194,43	2000,20	50.25	H/SH	NATURAL PIECE OF WOOD	1	1		114	64	2	2	piece of bark, pine		55	Schulz 1997
P 1901	1194,43	2000,08	50.27	H/SH	LATH	20	1		262	20	11	3				Schulz 1997
P 1902	1194,25	2000,15	50.25	H/SH	NATURAL PIECE OF WOOD	2	1		240	37	29	3	possibly one end charred			Schulz 1997
P 1903	1194,30	2000,10	50.25	H/SH	WOODEN ARTEFACT	20	1		131	60	21	4	tool marks at both end, hardwood, badly fragmented			Schulz 1997
P 1904	1194,89	2000,18	50.30	H/SH	PILE	10	1		841	85	70	4	both ends tapering, hardwood			Schulz 1997
P 1905	1194,70	1999,64	50.30	H/SH	PILE	10	1		812	76	65	4	wedge-shaped point, oblique end, hardwood			Schulz 1997
P 1906	1194,90	2000,22	50.30	H/SH	WOODEN ARTEFACT	20	1		168	21	9	2	thin spanner, pine			Schulz 1997
P 1907	1194,87	1998,71	50.27	H/SH	PILE	10	1		1534	64	60	4	tapering point, broken into trench section, hardwood			Schulz 1997
P 1908	1194,83	1998,83	50.28	H/SH	PILE	10	1		709	52	46	3	tapering point suipon, cut in trench section, hardwood			Schulz 1997
P 1909	1194,73	1999,99	50.32	H/SH	PILE	10	1		1597	110	81	3	both ends broken? peg-shaped point, oblique end, cut marks, hardwood, poor preservation after conservation		56	Schulz 1997
P 1910	1195,20	2000,30	50.25	H/SH	NATURAL PIECE OF WOOD	20	1		137	31	19	2	thin spanner, pine, natural		57	Schulz 1997
P 1911	1194,75	1999,75	50.25	H/SH	LATH	20	1		713	17	12	3				Schulz 1997
P 1912	1195,30	2000,80	50.25	H/SH	NATURAL PIECE OF WOOD	2	1		434	47	11	4	pine			Schulz 1997
P 1913	1195,32	2000,31	50.25	H/SH	LATH	20	1		369	27	14	3	triangular cross-section, halved, pine		58	Schulz 1997
P 1914	1195,07	2000,17	50.25	H/SH	WORKED WOOD	10	1		386	19	19	2	possibly pointed, end cut straight, pine			Schulz 1997
P 1915	1195,00	2000,00	50.25	H/SH	LATH	20	1			16	10	2	in several pieces			Schulz 1997
P 1916	1195,50	1998,80	50.33	H/SH	WORKED WOOD	10	1		1525	29	28	3	tapering point, end cut straight, pine			Schulz 1997
P 1917	1195,92	2000,63	50.35	H/SH	PILE	10	1		424	87	62	3	piece of a peg-shaped point, hardwood			Schulz 1997
P 1918	1196,00	2000,00	50.38	H/SH	PILE	10	1					3	pieces of pile, excavator damages, pine			Schulz 1997
P 1919	1196,00	1999,00	50.38	H/SH	LATH	20	1			18	16	3	in 12 pieces			Schulz 1997
P 1920	1195,52	1998,83	50.33	H/SH	LATH	20	1		688	33	11	3	in eight pieces			Schulz 1997
P 1921	1195,51	1999,23	50.37	H/SH	PILE	10	1		1470	110	70	5	decomposed, hardwood			Schulz 1997
P 1922	1196,79	1999,28	50.37	H/SH	LATH	20	1		889	17	13	2	in two fragments		59	Schulz 1997
P 1923	1196,76	1999,18	50.36	H/SH	PILE	10	1		1612	93	79	3	end cut straight and rounded, pine		60	Schulz 1997
P 1924	1196,32	1999,38	50.39	H/SH	LATH	20	1		487	20	9	2				Schulz 1997
P 1925	1195,87	1999,26	50.38	H/SH	LATH	20	1		835	20	11	2				Schulz 1997
P 1926	1195,89	1999,22	50.38	H/SH	LATH	20	1		709	19	14	2				Schulz 1997
P 1927	1195,89	1999,24	50.38	H/SH	LATH	20	1		185	13	8	2				Schulz 1997
P 1928	1195,88	1999,17	50.38	H/SH	LATH	20	1		384	24	10	3				Schulz 1997
P 1929	1196,19	1999,26	50.39	H/SH	LATH	20	1		286	15	8	2				Schulz 1997
P 1930	1196,61	1999,38	50.37	H/SH	LATH	20	1		441	22	10	3				Schulz 1997
P 1931	1196,62	1999,32	50.37	H/SH	LATH	20	1		788	21	15	2				Schulz 1997
P 1932	1196,05	1999,14	50.38	H/SH	LATH	20	1		380	13	9	3				Schulz 1997
P 1933	1195,95	1999,00	50.37	H/SH	LATH	20	1		417	21	13	3				Schulz 1997
P 1934	1196,63	1999,18	50.36	H/SH	NATURAL PIECE OF WOOD	10	1		400	29	25	4	cut mark, hardwood			Schulz 1997
P 1935	1196,10	1998,98	50.38	H/SH	NATURAL PIECE OF WOOD	10	1		1663	36	30	5	possible cut marks, hardwood			Schulz 1997
P 1936	1195,94	1998,84	50.34	H/SH	PILE	10	1		519	65	60	3	straight-cut end fragment, hardwood			Schulz 1997
P 1937	1196,49	1998,64	50.32	H/SH	NATURAL PIECE OF WOOD	2	1		412	33	29	2	branch, trimmed and peeled, pine			Schulz 1997

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 1938	1195,74	1999,49	50.38	H/SH	PILE	10	1		291	50	50	4	cut end fragment, hardwood			Schulz 1997
P 1939	1196,25	2000,17	50.38	H/SH	PILE	10	1		685	70	64	3	pencil-shaped point fragment (7 facets), pine, exhibit at Kierikki		61	Schulz 1997
P 1940	1196,23	2000,54	50.37	H/SH	NATURAL PIECE OF WOOD	2	1		418	40	27	4	hardwood			Schulz 1997
P 1941	1196,25	2000,52	50.38	H/SH	LATH	20	1		731	20	8	3				Schulz 1997
P 1942	1196,24	2000,67	50.37	H/SH	LATH	20	1		670	16	13	3				Schulz 1997
P 1943	1196,55	2000,46	50.39	H/SH	PILE	10	1		1290	45	30	5	decayed, hardwood			Schulz 1997
P 1944	1196,00	2000,00	50.38	H/SH	LATH	20	1		500	21	12	3	in three pieces			Schulz 1997
P 1945	1196,00	2000,00	50.39	H/SH	LATH	20	1		1088	21	15	3	in six pieces			Schulz 1997
P 1946	1196,80	2000,48	50.38	H/SH	NATURAL PIECE OF WOOD	1	1		250	45	10	2	pine bark, in two pieces		62	Schulz 1997
P 1947	1196,36	2000,19	50.37	H/SH	LATH	20	1		888	18	11	2	one end rounded, in two pieces			Schulz 1997
P 1948	1196,94	2000,55	50.40	H/SH	LATH	20	1		925	16	12	3	in four pieces,			Schulz 1997
P 1949	1196,94	2000,36	50.37	H/SH	NATURAL PIECE OF WOOD	1	1		595	50	36	3	wood sample, hardwood			Schulz 1997
P 1950	1197,18	2000,01	50.38	H/SH	NATURAL PIECE OF WOOD	1	1		155	54	6	2	pine bark, in two pieces			Schulz 1997
P 1951	1196,91	2000,38	50.39	H/SH	LATH	20	1		459	13	5	2	rounded end			Schulz 1997
P 1952	1197,07	2000,64	50.35	H/SH	WOODEN ARTEFACT	20	1		307	18	8	3	stick-shaped artefact, pine			Schulz 1997
P 1953	1197,40	2000,65	50.35	H/SH	LATH	20	1		570	28	17	2	rounded end, thick		63	Schulz 1997
P 1954	1197,57	2000,99	50.35	H/SH	PILE	10	1		454	45	37	2	end fragment, pine			Schulz 1997
P 1955	1196,87	2000,82	50.34	H/SH	LATH	20	1		670	21	9	2				Schulz 1997
P 1956	1197,33	2000,94	50.35	H/SH	LATH	20	1		332	32	13	3				Schulz 1997
P 1957	1196,85	2000,75	50.35	H/SH	LATH	20	1		670	17	10	3	in three pieces			Schulz 1997
P 1958	1197,25	2001,03	50.36	H/SH	LATH	20	1		370	11	8	3	binding depression			Schulz 1997
P 1959	1196,70	2000,66	50.40	H/SH	NATURAL PIECE OF WOOD	2	1		590	28	20	4	hardwood			Schulz 1997
P 1960	1197,13	2000,82	50.37	H/SH	LATH	20	1		311	17	10	2	one end rounded			Schulz 1997
P 1961	1196,89	2000,89	50.38	H/SH	PILE	10	1		1170	77	68	4	end fragment, point cut in trench section, hardwood			Schulz 1997
P 1962	1197,20	2001,00	50.32	H/SH	PILE	10	1		518	83	60	4	rounded end fragment, cut in trench section, hardwood			Schulz 1997
P 1963	1196,50	2000,50	50.32	H/SH	PILE	10	1		1275	47	42	3	peg-shaped, halved point fragment, hardwood			Schulz 1997
P 1964	1196,50	2000,40	50.30	H/SH	PILE	10	1		1470	70	65	1	point fragment, wedge-shaped point, clear tool marks, pine		64	Schulz 1997
P 1965	1197,30	2000,82	50.35	H/SH	LATH	20	1		249	17	9	2				Schulz 1997
P 1966	1196,95	2000,13	50.32	H/SH	PILE	10	1		1598	85	70	4	degraded, hardwood			Schulz 1997
P 1967	1197,42	2000,45	50.36	H/SH	LATH	20	1		523	22	13	3	in three fragments			Schulz 1997
P 1968	1197,92	2001,02	50.34	H/SH	NATURAL PIECE OF WOOD	10	1		304	43	13	3	piece of outer surface, pine		65	Schulz 1997
P 1969	1197,99	2000,96	50.34	H/SH	NATURAL PIECE OF WOOD	10	1		500	108	57	3	mallet-shaped, hardwood			Schulz 1997
P 1970	1196,76	1998,81	50.31	H/SH	PILE	10	1		934	54	51	3	tapering point, cut in trench section, hardwood			Schulz 1997
P 1971	1196,82	1999,17	50.36	H/SH	LATH	20	1		354	25	15	2	end piece, in two pieces, pine			Schulz 1997
P 1972	1197,17	1999,40	50.33	H/SH	STAKE	10	2		608	35	30	2	point fragment, triangural cross-section, pine		66	Schulz 1997
P 1973	1197,94	2000,98	50.34	H/SH	LATH	20	1		364	20	11	2	oblique end, pine			Schulz 1997
P 1974	1197,99	2001,09	50.33	H/SH	LATH	20	1		192	14	7	2	oblique end, pine			Schulz 1997
P 1975	1198,14	2001,20	50.32	H/SH	LATH	20	1		96	31	17	2	pine			Schulz 1997
P 1976	1198,16	2001,18	50.31	H/SH	LATH	20	1		172	17	10	2	triangular cross-section, pine			Schulz 1997
P 1977	1197,82	2000,65	50.33	H/SH	PILE	10	1		849	93	75	3	peg-shaped point, cut in ditch digging, hardwood			Schulz 1997
P 1978	1198,04	2000,32	50.32	H/SH	PILE	10	1		1090	73	43	3	tapering point, cut in ditch digging, hardwood			Schulz 1997
P 1979	1198,48	2000,98	50.32	H/SH	LATH	20	1		168	21	11	3	pine			Schulz 1997
P 1980	1198,32	2000,87	50.32	H/SH	LATH	20	1		77	23	7	2	pine			Schulz 1997
P 1981	1199,00	1999,90	50.32	H/SH	LATH	20	1		1557	21	12	4	triangular cross-section, pine			Schulz 1997
P 1982	1197,30	1999,81	50.37	H/SH	LATH	20	1		196	16	11	3	pine			Schulz 1997
P 1983	1197,17	1999,12	50.35	H/SH	LATH	20	1		328	16	12	3	pine			Schulz 1997
P 1984	1197,60	1998,74	50.27	H/SH	LATH	20	1		324	19	13	2	pine			Schulz 1997
P 1985	1197,80	1998,90	50.29	H/SH	LATH	20	1		793	26	16	3	broad end, halved? peculiar looking lath, pine		67	Schulz 1997
P 1986	1198,21	1998,74	50.27	H/SH	LATH	20	1		413	21	10	3	binding depressions, pine			Schulz 1997
P 1987	1198,49	1998,70	50.26	H/SH	LATH	20	1		108	20	12	2	pine			Schulz 1997
P 1988	1197,80	1998,90	50.29	H/SH	LATH	20	1		489	12	13	2	pine			Schulz 1997
P 1989	1197,80	1998,80	50.27	H/SH	PILE	10	1		767	76	30	4	hardwood			Schulz 1997
P 1990	1197,92	1998,87	50.28	H/SH	LATH	20	1		134	15	11	2	pine			Schulz 1997
P 1991	1197,62	1998,82	50.28	H/SH	NATURAL PIECE OF WOOD	1	1		585	19	14	3	hardwood			Schulz 1997
P 1992	1197,08	1998,79	50.31	H/SH	PILE	10	1		1328	68	56	3	tapering point, rounded end, hardwood			Schulz 1997
P 1993	1198,20	1999,39	50.32	H/SH	LATH	20	1		222	21	6	2	rounded end, pine			Schulz 1997
P 1994	1197,85	1999,19	50.33	H/SH	LATH	20	1		231	19	11	2	pine			Schulz 1997
P 1995	1199,08	1999,78	50.33	H/SH	PILE	10	1		1866	80	55	4	cut off, one part missing, hardwood			Schulz 1997
P 1996	1198,20	1999,49	50.34	H/SH	PILE	10	1		1055	58	40	3	oblique point, hardwood			Schulz 1997
P 1997	1198,23	1999,27	50.31	H/SH	LATH	20	1		645	15	10	2	pine			Schulz 1997
P 1998	1198,15	1999,28	50.32	H/SH	LATH	20	1		777	16	11	3	in two pieces, pine			Schulz 1997
P 1999	1198,23	1999,22	50.31	H/SH	LATH	20	1		224	15	7	2	pine			Schulz 1997
P 2000	1198,09	1999,19	50.32	H/SH	NATURAL PIECE OF WOOD	10	2		82	36	9	2	pine bark			Schulz 1997
P 2001	1197,82	1999,21	50.33	H/SH	NATURAL PIECE OF WOOD	2	1		332	22	12	4	hardwood			Schulz 1997
P 2002	1198,53	1999,59	50.33	H/SH	NATURAL PIECE OF WOOD	2	1		221	30	25	2	pine			Schulz 1997
P 2003	1197,64	1998,80	50.28	H/SH	LATH	20	1		248	17	5	2	pine			Schulz 1997
P 2004	1197,68	1998,80	50.27	H/SH	LATH	20	1		125	22	4	2	pine			Schulz 1997
P 2005	1197,64	1998,78	50.28	H/SH	STAKE	20	1		944	25	20	3	one end pointed, the other rounded, pine, deformed in water		68	Schulz 1997
P 2006	1196,94	1198,73	50.29	H/SH	PILE	10	1		670	52	44	3	tapering end			Schulz 1997
P 2007	1197,39	1998,98	50.31	H/SH	LATH	20	1		427	19	10	2	triangular cross-section, pine			Schulz 1997
P 2008	1197,77	1999,13	50.30	H/SH	LATH	20	1		153	19	18	2	pine			Schulz 1997
P 2009	1197,55	1998,82	50.28	H/SH	STAKE	20	1		800	30	25	4	tapering point, one part recovered, hardwood			Schulz 1997
P 2010	1197,91	1999,14	50.33	H/SH	NATURAL PIECE OF WOOD	1	1		253	17	11	4	one end rounded, the other cut off, hardwood			Schulz 1997
P 2011	1197,86	2000,16	50.23	H/SH	PILE	20	1		1793	68	65	3	initially complete,tapering point, rounded end, fragmented, end missing after conservation, hardwood		69	Schulz 1997
P 2012	1198,14	1999,73	50.28	H/SH	PILE	20	1		1415	56	38	2	complete, one end rounded, pencil-shaped point (5 facets)		70	Schulz 1997
P 2013	1178,38	1999,14	50.30	H/SH	PILE	20	1		2010	58	52	3	tapering ends			Schulz 1997
P 2014	1201,52	2001,06	50.23	H/SH	WORKED WOOD	10	1		560	47	19	2	triangular cross-section, pine, lath fragments with the same number at Kierikki		71	Schulz 1997
P 2015	1202,13	1999,27	50.26	H/SH	WORKED WOOD	10	1		98	128	44	2	flat, rounded piece of wood, pine, dendro sample FIO3904		72	Schulz 1997
P 2016	1200,00	2150,00		KK	PILE	10			600	71	65	3	barb-shaped point, end cut straight, deformed in water?		73	Schulz 1997
P 2017	1200,00	2150,00		KK	LATH	20			857	18	17				74	Schulz 1997
P 2018																Schulz 1997
P 2019																Schulz 1997
P 2020	1190,00	2150,00		KK	PILE	10	1		1070	96	86		pencil-shaped point (7 facets), drawn into scale, cut off from trench section, hardwood, dendro sample		75	Schulz 1997
P 2021																Schulz 1997
P 2022	1201,30	1998,92	50.24	H/SHPILE	PILE	10	1		497	53	46	2	blunt end cut straight, pine			Schulz 1997
P 2023	1200,87	1998,79	50.25	H/SH	STAKE	10	1		472	24	25	3	both ends broken off, tool marks?			Schulz 1997
P 2024	1201,15	1998,90	50.25	H/SH	WORKED WOOD	10	1		366	48	17	2	possibly halved or deformed in water		76	Schulz 1997
P 2025	1201,40	1999,06	50.26	H/SH	PILE	20	1		961	52	42	3	one end pointed, the other hook-shaped, hardwood			Schulz 1997
P 2026	1201,52	1998,71	50.23	H/SH	LATH	20	1		208	24	17	1	pine			Schulz 1997
P 2027	1201,78	1999,09	50.24	H/SH	LATH	20	1		324	14	7	2	pine			Schulz 1997
P 2028	1201,05	1998,90	50.26	H/SH	LATH	20	1		758	15	10	2	oblique end, pine			Schulz 1997
P 2029	1201,21	1998,85	50.20	H/SH	LATH	20	1		178	17	4	2	pine			Schulz 1997
P 2030	1201,28	1998,91	50.22	H/SH	LATH	20	2		210	15	7	2	pine			Schulz 1997
P 2031	1201,65	1999,24	50.26	H/SH	NATURAL PIECE OF WOOD	10	1		194	35	26	2	possibly cut off, hardwood		77	Schulz 1997
P 2032	1200,99	1998,81	50.26	H/SH	NATURAL PIECE OF WOOD	1	1		144	40	12	2	tree bark, hardwood			Schulz 1997
P 2033	1200,92	1998,85	50.26	H/SH	PILE	20	1		360	57	56	2	oblique end, pine			Schulz 1997
P 2034	1201,30	1998,75	50.23	H/SH	PILE	10	1		1220	48	41	3	rounded end, hardwood			Schulz 1997
P 2035	1201,23	1998,28	50.24	H/SH	PILE	10	1		452	41	34	4	rounded end? hardwood			Schulz 1997
P 2036	1201,53	1999,23	50.27	H/SH	PILE	20	1		1219	81	77	1	complete, pencil-shaped point (7 facets), end cut straight, fragmented, pine		78	Schulz 1997
P 2037	1201,18	1999,07	50.27	H/SH	NATURAL PIECE OF WOOD	2	1		152	31	11	4	possibly worked, three fragments, pine		79	Schulz 1997
P 2038	1201,30	1999,07	50.25	H/SH	LATH	20	2		449	18	16	2	hooked end, three binding grooves		80	Schulz 1997
P 2039	1200,98	1998,94	50.26	H/SH	WORKED WOOD	10	1		368	32	30	2	one end blunted, pine, deformed in water		81	Schulz 1997
P 2040	1201,08	1999,02	50.26	H/SH	LATH	20	2		491	18	19	3	oblique end, pine			Schulz 1997
P 2041	1275,00	1998,84	50.26	H/SH	LATH	20	1		227	19	15	2	pine			Schulz 1997
P 2042	1252,00	1998,79	50.24	H/SH	STAKE	10	1		384	27	21	3	rounded end, wood sample, hardwood?			Schulz 1997
P 2043	1200,28	1998,76	50.24	H/SH	PILE	10	1		721	42	35	3	tapering end, point missing, hardwood			Schulz 1997
P 2044	1200,29	1998,84	50.26	H/SH	NATURAL PIECE OF WOOD	2	1		262	44	27	3	hardwood			Schulz 1997
P 2045	1200,59	1998,96	50.28	H/SH	NATURAL PIECE OF WOOD		1		78	37	12	2	pine bark			Schulz 1997
P 2046	1200,44	1998,94	50.30	H/SH	NATURAL PIECE OF WOOD		1		36	32	8	2	tree bark, hardwood			Schulz 1997
P 2047	1200,71	1999,16	50.27	H/SH	NATURAL PIECE OF WOOD	2	1		414	38	34	3	harwood? wood sample			Schulz 1997
P 2048	1200,31	1998,82	50.23	H/SH	NATURAL PIECE OF WOOD	20	1		609	45	41	3	deformed in water		82	Schulz 1997
P 2049	1200,26	1998,99	50.25	H/SH	NATURAL PIECE OF WOOD	1	1		137	18	15	3	peg-shaped piece, hardwood			Schulz 1997
P 2050	1200,00	1998,76	50.27	H/SH	PILE	10	1		982	50	49	3	end cut straight, in trench section, hardwood			Schulz 1997
P 2051	1201,50	1999,23	50.27	H/SH	NATURAL PIECE OF WOOD	2	1		269	65	29	3	hardwood			Schulz 1997
P 2052	1201,23	1999,20	50.27	H/SH	LATH	20	1		253	17	14	2	oblique end			Schulz 1997

APPENDIX II: LIST OF PURKAJASLO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 2053	1201,82	1999,34	50.26	H/SH	PILE	20	1		268	39	36	2	tapering point, hardwood			Schulz 1997
P 2054	1200,60	1999,06	50.25	H/SH	PILE	10	1		1431	75	70	3	complete, rounded end, tapering point, hardwood, poor preservation		83	Schulz 1997
P 2055	1201,16	1999,72	50.28	H/SH	PILE	10	1		1239	70	76	2	blunted point, partly fragmented, angular cross-section, pine, dendro sample FIO3905=11BC		84	Schulz 1997
P 2056	1201,52	1999,85	50.28	H/SH	NATURAL PIECE OF WOOD	2	1		332	38	32	2	pine			Schulz 1997
P 2057	1199,97	1999,25	50.25	H/SH	STAKE	10	1		1926	42	41	2	chisel-shaped ends, pine		85	Schulz 1997
P 2058	1200,28	1999,40	50.26	H/SH	LATH	20	1		382	21	15	2	binding groove, pine			Schulz 1997
P 2059	1200,25	1999,43	50.26	H/SH	LATH	20	1		264	29	19	2	pine			Schulz 1997
P 2060	1200,20	1999,36	50.26	H/SH	LATH	20	1		235	20	13	2	oblique end, pine			Schulz 1997
P 2061	1200,65	1999,45	50.26	H/SH	NATURAL PIECE OF WOOD	2	1		113	25	33	3	pine			Schulz 1997
P 2062	1200,39	1999,24	50.25	H/SH	LATH	20	1		240	15	12	2	oblique end, pine			Schulz 1997
P 2063	1200,22	1999,13	50.24	H/SH	LATH	20	1		237	17	5	2	pine			Schulz 1997
P 2064	1200,00	1998,90	50.27	H/SH	LATH	20	1		310	25	9	2	pine			Schulz 1997
P 2065	1198,48	2000,16	50.30	H/SH	PILE	20	1		717	52	55	2	chisel-shaped ends, hardwood		86	Schulz 1997
P 2066	1199,10	1999,50	50.31	H/SH	WORKED WOOD	10	1		406	54	45	3	both ends rounded, pine			Schulz 1997
P 2067	1199,33	1999,96	50.31	H/SH	LATH	20	1		168	16	9	3	pine			Schulz 1997
P 2068	1199,29	1999,57	50.31	H/SH	LATH	20	1		222	16	14	2	pine			Schulz 1997
P 2069	1198,78	1999,43	50.31	H/SH	LATH	20	1		213	10	8	2	pine			Schulz 1997
P 2070	1198,76	1999,58	50.32	H/SH	LATH	20	1		431	18	10	2	pine			Schulz 1997
P 2071	1199,06	1999,56	50.31	H/SH	LATH	20	1		87	12	9	2	pine			Schulz 1997
P 2072	1199,10	1999,55	50.31	H/SH	LATH	20	1		169	17	13	2	chisel-shaped point, pine			Schulz 1997
P 2073	1199,01	1999,28	50.29	H/SH	LATH	20	1		1204	19	13	1	pointed end, pine		87	Schulz 1997
P 2074	1200,07	1999,86	50.33	H/SH	LATH	20	1		58	24	15	3	pine			Schulz 1997
P 2075	1200,00	1999,23	50.29	H/SH	STAKE	10	1		1772	36	36	2	one end rounded or deformed in water, other end missing, pine		88	Schulz 1997
P 2076	1199,99	1999,72	50.32	H/SH	WORKED WOOD	20	1		303	70	50	2	end cut straight, peg-shaped point			Schulz 1997
P 2077	1200,22	2000,95	50.29	H/SH	STAKE	20	1		1665	29	29	1	complete, tapering point with horizontal notches, end cut straight, pine		89	Schulz 1997
P 2078	1199,52	2000,79	50.29	H/SH	PILE	10	1		454	34	29	3	sharp point, hardwood			Schulz 1997
P 2079	1199,60	2000,97	50.30	H/SH	LATH	20	1		440	25	16	3	oblique end, binding depression, pine			Schulz 1997
P 2080	1199,60	2000,59	50.30	H/SH	WORKED WOOD	10	1		380	68	29	3	longitudinally halved, cut marks, hardwood		90	Schulz 1997
P 2081	1199,59	2000,46	50.30	H/SH	WOODEN ARTEFACT	20	1		230	58	50	3	both ends cut, hardwood			Schulz 1997
P 2082	1198,98	2000,45	50.31	H/SH	NATURAL PIECE OF WOOD	2	1		972	42	40	3	hardwood			Schulz 1997
P 2083	1199,10	2000,00	50.31	H/SH	LATH	20	1		750	19	13	3	binding depression			Schulz 1997
P 2084	1199,65	2000,03	50.31	H/SH	LATH	20	1		390	21	12	3	triangular cross-section			Schulz 1997
P 2085	1199,50	2000,16	50.32	H/SH	NATURAL PIECE OF WOOD	2	1		445	31	28	3	hardwood			Schulz 1997
P 2086	1199,31	2000,12	50.31	H/SH	WORKED WOOD	10	1		755	27	32	4	end cut straight, hardwood			Schulz 1997
P 2087	1199,63	2000,30	50.31	H/SH	WORKED WOOD	10	1		249	25	19	3	broad chisel-shaped point, hardwood			Schulz 1997
P 2088	1199,10	2000,98	50.29	H/SH	WORKED WOOD	10	1		405	77	41	3	cut marks or deformed in water, hardwood		91	Schulz 1997
P 2089	1199,87	2000,93	50.28	H/SH	LATH	20	1		155	12	7	2				Schulz 1997
P 2090	1200,06	2001,10	50.28	H/SH	PILE	10	1		1322	59	49	3	possibly complete, wedge-shaped point, end possibly cut off, hardwood		92	Schulz 1997
P 2091	1202,19	1999,88	50.25	H/SH	PILE	10	1		1581	108	76	4	tapering point, end cut straight, hardwood			Schulz 1997
P 2092	1199,60	2000,64	50.30	H/SH	LATH	20	1		253	16	12	2	stick-shaped		93	Schulz 1997
P 2093	1199,53	2000,68	50.30	H/SH	NATURAL PIECE OF WOOD	2	1		215	8	7	2	branch, pine			Schulz 1997
P 2094	1199,75	2000,85	50.28	H/SH	PILE	10	1		1033	61	53	3	peg-shaped point fragment, tool marks, hardwood			Schulz 1997
P 2095	1199,61	2000,85	50.30	H/SH	WORKED WOOD	10	2		303	25	25	2	cut marks, pine		94	Schulz 1997
P 2096	1199,55	2000,65	50.30	H/SH	PILE	10	1		902	73	65	1	complete, oblique point, end cut straight, pine		95	Schulz 1997
P 2097	1199,23	2001,29	50.29	H/SH	NATURAL PIECE OF WOOD	2	1		315	24	23	2	pine			Schulz 1997
P 2098	1199,07	2000,91	50.29	H/SH	STAKE	10	1		697	40	39	2	fragment, longitudinal tool marks, pine			Schulz 1997
P 2099	1199,05	2000,83	50.29	H/SH	PILE	10	1		1350	57	49	4	tapering point, end cut off, hardwood			Schulz 1997
P 2100	1199,21	2000,86	50.31	H/SH	NATURAL PIECE OF WOOD	2	1		1311	22	22	1	hardwood		96	Schulz 1997
P 2101	1198,82	2000,78	50.29	H/SH	LATH	20	1		874	28	21	3	pine			Schulz 1997
P 2102	1199,78	2000,55	50.29	H/SH	PILE	10	1		942	75	71	2	possibly complete, peg-shaped point fragment, end cut straight, pine		97	Schulz 1997
P 2103	1200,05	2000,65	50.31	H/SH	LATH	20	1		536	18	11	3				Schulz 1997
P 2104	1200,13	2000,51	50.32	H/SH	LATH	20	1		546	28	15	3	oblique end, unfinished			Schulz 1997
P 2105	1199,85	2000,59	50.31	H/SH	PILE	10	1		786	50	45	3	wedge-shaped point, rounded end, hardwood			Schulz 1997
P 2106	1201,01	2000,82	50.27	H/SH	WORKED WOOD	10	1		692	33	28	3	tapering point, end cut straight			Schulz 1997
P 2107	1201,31	2001,01	50.24	H/SH	POLE	10	1		2649	47	43	1	complete, oblique point, end cut straight, notched in the middle, pine		98	Schulz 1997
P 2108	1201,16	2000,77	50.24	H/SH	PILE	10	1		1607	69	60	4	rounded point, end cut straight, hardwood			Schulz 1997
P 2109	1201,24	2000,92	50.24	H/SH	LATH	20	1		436	18	14	2	rounded end			Schulz 1997
P 2110	1200,47	2000,54	50.30	H/SH	LATH	20	1		496	18	14	2	in two fragments			Schulz 1997
P 2111	1201,18	2000,65	50.26	H/SH	LATH	20	1		182	19	12	2	oblique end			Schulz 1997
P 2112	1201,20	2000,60	50.26	H/SH	PILE	10	1		1164	65	10	3	pencil-shaped point (8 angles), end cut straight and notched, birch			Schulz 1997
P 2113	1200,50	2000,54	50.30	H/SH	LATH	20	1		740	21	9	4				Schulz 1997
P 2114	1200,00	2160,00			LATH	20			502	15	15		test pit, rounded end, measurements after conservation			Schulz 1997
P 2115	1200,00	2160,00		KK	LATH	20			613	19	13		test pit		99	Schulz 1997
P 2116	1150,00	2150,00		KK	LATH	20			1245	17	15		two fragments, measurements after conservation, test pit		100	Schulz 1997
P 2117	1150,00	2151,00		KK	LATH	20							test pit		101	Schulz 1997
P 2118	1150,00	2151,00		KK	NATURAL PIECE OF WOOD	2			90	82	26		test pit, possibly halved and worked, charred, firewood in the waterfront?		102	Schulz 1997
P 2119	1200,60	2000,25	50.29	H/SH	LATH	20	1		1503	24	16	3	binding depression, rounded end			Schulz 1997
P 2120	1200,56	2000,16	50.30	H/SH	PILE	10	1		835	76	61	4	wedge-shaped point, end cut straight, hardwood			Schulz 1997
P 2121	1200,48	2000,19	50.30	H/SH	WEDGE	10	1		269	64	36	3	blunt end, tapering point, hardwood			Schulz 1997
P 2122	1200,16	2000,10	50.30	H/SH	WORKED WOOD	10	2		199	30	21	4	tool marks? Hardwood			Schulz 1997
P 2123	1201,70	1999,76	50.26	H/SH	LATH	20	2		210	20	8	3	end piece, bark attached in places			Schulz 1997
P 2124	1201,71	1999,80	50.26	H/SH	LATH	20	2		215	18	12	2	end piece			Schulz 1997
P 2125	1201,00	1999,40	50.30	H/SH	PILE	10	1		739	79	41	4	end fragment, hardwood			Schulz 1997
P 2126	1201,55	2000,78	50.25	H/SH	PILE	10	1		845	62	55	3	tapering point, peg-shaped end, hardwood			Schulz 1997
P 2127	1201,31	2001,12	50.27	H/SH	LATH	20	1		852	23	10	2	fragments, oblique end			Schulz 1997
P 2128	1201,63	2000,40	50.24	H/SH	WEDGE	10	1		580	49	45	2	notched, excavator damages, both ends cut off, pine, deformed in water		103	Schulz 1997
P 2129	1201,25	2000,29	50.29	H/SH	NATURAL PIECE OF WOOD	2	1		197	43	16	3	pine			Schulz 1997
P 2130	1200,99	2000,18	50.30	H/SH	WEDGE	10	1		257	72	66	1	wedge-shaped point, end cut straight, pine, exhibit at Kierikki		104	Schulz 1997
P 2131	1201,52	2000,10	50.28	H/SH	WORKED WOOD	10	1		443	70	54	3	one end cut, fork-shaped object, birch			Schulz 1997
P 2132	1201,31	2000,32	50.27	H/SH	LATH	20	1		248	16	10	2	oblique end			Schulz 1997
P 2133	1201,35	2000,50	50.26	H/SH	NATURAL PIECE OF WOOD	10	1		289	29	25	2	branch, pointed branch? Hardwood			Schulz 1997
P 2134	1200,92	1999,40	50.28	H/SH	WORKED WOOD	10	1		372	47	41	3	fork-shaped branch, stings cut straight, wedge-shaped end, hardwood		105	Schulz 1997
P 2135	1199,38	1998,91	50.24	H/SH	STAKE	20	1		2417	33	31	1	pencil-shaped point (7 angles), smoothed all over, pine, good preservation		106	Schulz 1997
P 2136	1200,10	1999,03	50.24	H/SH	LATH	20	1		599	22	12	3	rounded end			Schulz 1997
P 2137	1200,73	1999,41	50.26	H/SH	LATH	20	1		223	18	12	3	tapering end, two knotholes			Schulz 1997
P 2138	1199,53	1998,59	50.24	H/SH	STAKE	10	1		1558	30	29	1	tapering end, one end in trench section, pine		107	Schulz 1997
P 2139	1199,29	1998,91	50.24	H/SH	PILE	10	1		2446	82	74	4	tapering point, possibly oblique end, hardwood			Schulz 1997
P 2140	1201,63	1999,95	50.28	H/SH	NATURAL PIECE OF WOOD	10	1		711	49	43	3	cut off and trimmed, hardwood			Schulz 1997
P 2141	1201,26	1999,92	50.29	H/SH	NATURAL PIECE OF WOOD	10	1		356	58	56	4	possibly cut off, fork-shaped end, deformed in water, hardwood		108	Schulz 1997
P 2142	1201,51	1999,52	50.28	H/SH	PILE	10	1		515	59	54	4	peg-shaped point, end cut straight, hardwood		109	Schulz 1997
P 2143	1201,65	1999,52	50.25	H/SH	NATURAL PIECE OF WOOD	10	1		273	46	38	3	rounded end, deformed in water, hardwood			Schulz 1997
P 2144	1200,60	2000,25	50.29	H/SH	LATH	20	1		1292	18	16	2	two fragments, oblique end, other end rounded		110	Schulz 1997
P 2145	1200,66	2000,46	50.25	H/SH	WEDGE	10	1		584	50	50	3	complete, wedge-shaped point, end cut straight, hardwood		111	Schulz 1997
P 2146	1200,90	2000,33	50.30	H/SH	PILE	10	1		1366	62	52	3	pointed and notched, end made thinner and cut straight, hardwood			Schulz 1997
P 2147	1201,57	2000,48	50.25	H/SH	PILE	10	1		1313	65	60	3	tapering point, rounded end, hardwood			Schulz 1997
P 2148	1200,95	1999,23	50.28	H/SH	PILE	10	1		1741	69	69	3	complete, notched pencil-shaped point (7 facets), end cut straight, slightly rounded, birch		112	Schulz 1997
P 2149	1201,90	1999,75	50.25	H/SH	WOODEN ARTEFACT	20	1		164	18	14	2	lying parallel underneath pile P2091, pine			Schulz 1997
P 2150	1201,50	1999,57	50.25	H/SH	STAKE	20	1		1870	28	27	2	angular cross-section, pine		113	Schulz 1997
P 2151	1199,21	1999,37	50.27	H/SH	LATH	20	1		288	18	16	2	pine			Schulz 1997
P 2152	1200,06	2001,24	50.26	H/SH	NATURAL PIECE OF WOOD	1	1		135	30	25	2	hardwood wood sample			Schulz 1997
P 2153	1200,25	2001,28	50.25	H/SH	NATURAL PIECE OF WOOD	1	1		297	20	16	2	pine			Schulz 1997
P 2154	1200,32	2001,15	50.23	H/SH	WORKED WOOD	10	1		592	25	49	2	chisel-shaped end, deformed in water		114	Schulz 1997
P 2155	1200,43	2001,05	50.29	H/SH	LATH	20	1		324	16	11	2				Schulz 1997
P 2156	1200,70	2001,22	50.23	H/SH	NATURAL PIECE OF WOOD	1	1		498	22	24	3	hardwood			Schulz 1997
P 2157	1200,78	2001,22	50.22	H/SH	NATURAL PIECE OF WOOD	2	1		458	24	20	2	oblique end, hardwood wood sample			Schulz 1997
P 2158	1200,71	2001,07	50.21	H/SH	NATURAL PIECE OF WOOD	2	1		730	36	26	3	hardwood			Schulz 1997
P 2159	1199,90	2000,97	50.25	H/SH	NATURAL PIECE OF WOOD	2	1		708	17	15	4	oblique end, hardwood			Schulz 1997
P 2160	1199,84	2000,84	50.23	H/SH	LATH	20	1		746	27	7	1	end cut straight, pine		115	Schulz 1997
P 2161	1199,97	2000,84	50.23	H/SH	NATURAL PIECE OF WOOD	10	1		390	22	21	2	end cut straight, hardwood			Schulz 1997
P 2162	1200,72	2000,95	50.23	H/SH	LATH	20	1		1124	28	9	4	end cut straight, pine			Schulz 1997

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 2163	1200,36	2000,80	50.22	H/SH	NATURAL PIECE OF WOOD	2	1		437	15	13	4	branch, hardwood			Schulz 1997
P 2164	1200,90	2000,85	50.21	H/SH	LATH	20	1		607	19	8	2	pine			Schulz 1997
P 2165	1200,41	2000,63	50.22	H/SH	NATURAL PIECE OF WOOD	1	1		704	49	29	5				Schulz 1997
P 2166	1200,39	2000,51	50.23	H/SH	LATH	20	1		230	24	19	2	oblique end, pine			Schulz 1997
P 2167	1201,00	2000,53	50.23	H/SH	NATURAL PIECE OF WOOD	2	1		140	12	10	3	branch, hardwood			Schulz 1997
P 2168	1200,47	2000,19	50.25	H/SH	LATH	20	1		150	14	14	1	oblique end, pine			Schulz 1997
P 2169	1200,42	2000,31	50.27	H/SH	NATURAL PIECE OF WOOD	2	1		244	36	29	1	pine			Schulz 1997
P 2170	1199,57	2000,17	50.27	H/SH	LATH	20	1		389	15	9	3	pine			Schulz 1997
P 2171	1199,60	2000,20	50.27	H/SH	NATURAL PIECE OF WOOD	1	1		1010	21	14	5				Schulz 1997
P 2172	1199,82	2000,27	50.28	H/SH	LATH	20	1		414	16	8	2	rounded end, pine			Schulz 1997
P 2173	1199,68	2000,32	50.27	H/SH	LATH	20	1		139	20	13	3	pine			Schulz 1997
P 2174	1199,92	2000,36	50.26	H/SH	NATURAL PIECE OF WOOD	2	1		168	26	25	3	hardwood			Schulz 1997
P 2175	1199,60	2000,27	50.28	H/SH	LATH	20	1		220	18	10	2	pine			Schulz 1997
P 2176	1199,49	2000,24	50.28	H/SH	LATH	20	1		143	10	6	3	pine			Schulz 1997
P 2177	1199,47	2000,21	50.28	H/SH	LATH	20	1		178	24	11	2	pine			Schulz 1997
P 2178	1199,61	2000,21	50.28	H/SH	LATH	20	1		242	24	10	2	pine			Schulz 1997
P 2179	1199,90	2000,30	50.27	H/SH	LATH	20	1		125	20	10	2	pine			Schulz 1997
P 2180	1199,87	2000,38	50.26	H/SH	LATH	20	1		152	18	10	2	end cut straight, pine			Schulz 1997
P 2181	1199,72	2000,26	50.28	H/SH	LATH	20	1		293	17	5	1	one end rounded, the other cut straight, pine			Schulz 1997
P 2182	1199,99	2000,24	50.27	H/SH	LATH	20	1		153	14	13	2	triangular cross-section, pine			Schulz 1997
P 2183	1200,31	2000,41	50.25	H/SH	LATH	20	1		302	17	10	3	oblique end, pine			Schulz 1997
P 2184	1200,23	2000,39	50.25	H/SH	LATH	20	1		346	14	11	2	oblique end, the other cut straight, pine		116	Schulz 1997
P 2185	1200,50	2000,46	50.28	H/SH	NATURAL PIECE OF WOOD	10	1		101	55	21	2	pine		117	Schulz 1997
P 2186	1201,08	1998,08	50.19	H/SH	NATURAL PIECE OF WOOD	2	1		186	43	25	4	hardwood			Schulz 1997
P 2187	1200,75	1998,83	50.20	H/SH	LATH	20	1		279	20	11	3	three fragments pine			Schulz 1997
P 2188	1201,00	1998,95	50.21	H/SH	LATH	20	1		60	15	9	1	both ends cut straight			Schulz 1997
P 2189	1200,85	1999,06	50.21	H/SH	LATH	20	1		253	20	11	1	pine			Schulz 1997
P 2190	1200,31	1998,98	50.21	H/SH	LATH	20	1		302	18	12	2	pine			Schulz 1997
P 2191	1200,34	1999,06	50.21	H/SH	LATH	20	1		89	16	12	3	pine			Schulz 1997
P 2192	1200,77	1999,44	50.22	H/SH	LATH	20	1		302	20	9	1	oblique end, pine			Schulz 1997
P 2193	1200,48	1998,98	50.22	H/SH	NATURAL PIECE OF WOOD	1	1		58	36	6	1	pine bark			Schulz 1997
P 2194	1200,68	1999,03	50.21	H/SH	NATURAL PIECE OF WOOD	1	1		255	10	10	3	branch, hardwood			Schulz 1997
P 2195	1200,39	1998,98	50.21	H/SH	NATURAL PIECE OF WOOD	2	1		670	35	22	4	branch, hardwood			Schulz 1997
P 2196	1200,53	1999,00	50.22	H/SH	NATURAL PIECE OF WOOD	2	1		185	33	26	4	hardwood			Schulz 1997
P 2197	1200,52	1999,05	50.22	H/SH	NATURAL PIECE OF WOOD	1	1		95	16	16	3	branch, one end cut straight, hardwood			Schulz 1997
P 2198	1200,50	1999,11	50.21	H/SH	LATH	20	1		864	17	14	2	two fragments, one end oblique, pine			Schulz 1997
P 2199	1200,65	1999,13	50.21	H/SH	LATH	20	1		220	11	8	3	pine			Schulz 1997
P 2200	1201,04	1999,25	50.21	H/SH	LATH	20	1		484	12	9	3	in three pieces, pine			Schulz 1997
P 2201	1201,23	1998,91	50.20	H/SH	NATURAL PIECE OF WOOD	2	1		221	28	25	1	hardwood wood sample			Schulz 1997
P 2202	1201,26	1998,97	50.21	H/SH	NATURAL PIECE OF WOOD	1	1		156	13	11	2	branch, hardwood			Schulz 1997
P 2203	1201,79	1999,16	50.21	H/SH	LATH	20	1		325	14	12	3	two fragments, pine			Schulz 1997
P 2204	1201,52	1998,98	50.20	H/SH	NATURAL PIECE OF WOOD	2	1		248	34	23	3	hardwood			Schulz 1997
P 2205	1201,62	1999,01	50.20	H/SH	LATH	20	1		156	11	7	2	triangular cross-section, pine			Schulz 1997
P 2206	1201,55	1999,07	50.21	H/SH	WORKED WOOD	20	1		186	15	13	3	both ends worked, hardwood			Schulz 1997
P 2207	1201,29	1999,05	50.21	H/SH	LATH	20	1		199	20	11	1	oblique end, pine			Schulz 1997
P 2208	1201,30	1999,00	50.21	H/SH	NATURAL PIECE OF WOOD	1	1		242	42	21	3	hardwood			Schulz 1997
P 2209	1090,25	2079,25	50.03	SH-30	NATURAL PIECE OF WOOD	2	1		3134	175	143	3	hardwood wood sample			Schulz 1997
P 2210	1090,60	2078,98	49.59	SH-30	LATH	20	1		1035	34	18	3	binding depression, pine			Schulz 1997
P 2211	1090,58	2079,05	49.95	SH-30	LATH	20	1		839	27	20	3	pine			Schulz 1997
P 2212	1090,75	2079,23	49.95	SH-30	LATH	20	1		1116	17	9	2	oblique end, pine			Schulz 1997
P 2213	1090,60	2079,43	49.94	SH-30	LATH	20	1		723	19	8	2	oblique end, binding groove, pine		118	Schulz 1997
P 2214	1090,92	2079,65	49.96	SH-30	LATH	20	1		820	23	27	1	pine			Schulz 1997
P 2215	1091,13	2080,03	49.98	SH-30	LATH	20	1		1126	19	8	2	in three pieces, pine			Schulz 1997
P 2216	1091,10	2079,96	49.98	SH-30	LATH	20	1		707	18	13	2	pine			Schulz 1997
P 2217	1201,23	1999,06	50.21	H/SH	LATH	20	1		203	10	7	2	pine			Schulz 1997
P 2218	1201,22	1999,09	50.21	H/SH	LATH	20	1		312	14	14	2	pine			Schulz 1997
P 2219	1201,58	1999,28	50.21	H/SH	NATURAL PIECE OF WOOD	1	1		156	16	15	3	hardwood			Schulz 1997
P 2220	1201,49	1999,11	50.21	H/SH	LATH	20	1		186	15	11	3	oblique end, pine			Schulz 1997
P 2221	1201,60	1999,25	50.20	H/SH	LATH	20	1		138	13	11	2	pine			Schulz 1997
P 2222	1201,14	1999,16	50.21	H/SH	LATH	20	1		205	12	8	3	pine			Schulz 1997
P 2223	1201,46	1999,34	50.21	H/SH	NATURAL PIECE OF WOOD	1	1		270	21	22	3	Alnus?			Schulz 1997
P 2224	1200,85	1999,27	50.21	H/SH	LATH	20	1		115	27	5	3	pine			Schulz 1997
P 2225	1201,05	1999,53	50.23	H/SH	LATH	20	1		117	20	12	3	pine			Schulz 1997
P 2226	1200,81	1999,34	50.23	H/SH	LATH	20	1		185	22	8	2	oblique end, pine			Schulz 1997
P 2227	1201,55	1999,46	50.21	H/SH	NATURAL PIECE OF WOOD	2	1		278	25	15	3	branch, hardwood			Schulz 1997
P 2228	1201,57	1999,50	50.21	H/SH	NATURAL PIECE OF WOOD	2	1		210	22	24	2	possibly tool marks, charred, NW shore, hardwood		119	Schulz 1997
P 2229	1201,34	1999,54	50.22	H/SH	NATURAL PIECE OF WOOD	1	1		229	15	9	3	wedge-shaped end, hardwood			Schulz 1997
P 2230	1201,30	1999,50	50.22	H/SH	LATH	20	1		435	16	13	2	pine			Schulz 1997
P 2231	1201,72	1999,62	50.24	H/SH	NATURAL PIECE OF WOOD	2	1		270	40	25	3	hardwood			Schulz 1997
P 2232	1201,72	1999,56	50.23	H/SH	LATH	20	1		141	14	11	3	pine			Schulz 1997
P 2233	1201,78	1999,59	50.23	H/SH	LATH	20	1		195	14	10	3	pine			Schulz 1997
P 2234	1201,78	1999,60	50.22	H/SH	LATH	20	1		808	15	8	2	pine		120	Schulz 1997
P 2235	1201,96	1999,71	50.22	H/SH	NATURAL PIECE OF WOOD	2	1		358	20	15	1	possibly worked, pine		121	Schulz 1997
P 2236	1201,30	1999,56	50.24	H/SH	NATURAL PIECE OF WOOD	0	1		33	12	6	3	branch, in two pieces, hardwood			Schulz 1997
P 2237	1201,83	1999,80	50.22	H/SH	NATURAL PIECE OF WOOD	2	2		298	21	11	2	possibly halved, rounded end, hardwood		122	Schulz 1997
P 2238	1201,62	1999,90	50.23	H/SH	NATURAL PIECE OF WOOD	10	1		197	33	16	2	possibly wood working debris, pine		123	Schulz 1997
P 2239	1064,78	2035,00	50.12	SH	NATURAL PIECE OF WOOD	2	1		145	35	11	5	hardwood			Schulz 1997
P 2240	1064,50	2035,02	50.13	SH	LATH	20	1		118	18	14	4	pine			Schulz 1997
P 2241	1064,59	2035,06	50.12	SH	NATURAL PIECE OF WOOD	2	1		346	18	15	4	hardwood			Schulz 1997
P 2242	1064,22	2035,10	50.13	SH	NATURAL PIECE OF WOOD	20	1		187	31	7	5	possibly lath, broken			Schulz 1997
P 2243	1064,38	2035,45	50.12	SH	NATURAL PIECE OF WOOD	2	1		228	29	19	5	hardwood			Schulz 1997
P 2244	1064,79	2035,55	50.17	SH	LATH	20	1		311	22	17	3	pine			Schulz 1997
P 2245	1064,80	2035,57	50.17	SH	LATH	20	1		344	21	17	3	in two pieces, pine			Schulz 1997
P 2246	1064,50	2035,88	50.16	SH	LATH	20	1		100	19	7	3	pine			Schulz 1997
P 2247	1064,80	2035,83	50.15	SH	LATH	20	1		395	13	11	4	oblique end, in three pieces, pine			Schulz 1997
P 2248	1064,13	2036,30	50.17	SH	LATH	20	1			15	11	4	in 17 pieces, pine			Schulz 1997
P 2249	1201,40	1999,72	50.23	H/SH	NATURAL PIECE OF WOOD	10	1		95	45	4	4	hardwood?			Schulz 1997
P 2250	1201,48	1999,93	50.24	H/SH	LATH	20	1		160	15	11	2	pine			Schulz 1997
P 2251	1201,51	1999,86	50.24	H/SH	NATURAL PIECE OF WOOD	10	1		146	34	16	2	pine			Schulz 1997
P 2252	1200,71	1999,48	50.22	H/SH	STAKE	10	1		467	20	17	3	one end rounded, hardwood			Schulz 1997
P 2253	1200,30	1999,47	50.22	H/SH	NATURAL PIECE OF WOOD	20	1		391	17	17	3	branch, hardwood			Schulz 1997
P 2254	1200,54	1999,49	50.25	H/SH	LATH	20	1		494	16	11	3	pine			Schulz 1997
P 2255	1201,12	1999,66	50.23	H/SH	NATURAL PIECE OF WOOD	10	1		165	25	13	3	possibly carved point, pine			Schulz 1997
P 2256	1201,24	1999,70	50.23	H/SH	NATURAL PIECE OF WOOD	10	1		74	13	13	3	hardwood			Schulz 1997
P 2257	1201,20	1999,72	50.23	H/SH	NATURAL PIECE OF WOOD	2	1		136	56	5	3	hardwood			Schulz 1997
P 2258	1201,34	1999,72	50.23	H/SH	NATURAL PIECE OF WOOD	2	1		203	39	30	4	one end cut straight, pine			Schulz 1997
P 2259	1201,35	1999,83	50.24	H/SH	LATH	20	1		402	23	17	1	birch bark fragment aside, pine			Schulz 1997
P 2260	1201,65	1999,88	50.23	H/SH	LATH	20	1		439	18	7	3	both ends worked, halved, pine			Schulz 1997
P 2261	1200,85	1999,74	50.25	H/SH	WORKED WOOD	20	1		177	40	13	3	oblique point, pine			Schulz 1997
P 2262	1090,95	2080,30	49.95	SH-30	LATH	20	1		422	20	11	2	hardwood			Schulz 1997
P 2263	1090,37	2079,60	49.89	SH-30	NATURAL PIECE OF WOOD	1	1		520	19	16	3	pine			Schulz 1997
P 2264	1090,92	2080,30	49.95	SH-30	LATH	20	1		501	17	15	3	oblique end, pine			Schulz 1997
P 2265	1090,52	2079,80	49.96	SH-30	LATH	20	1		350	17	10	2	oblique end, pine			Schulz 1997
P 2266	1090,57	2079,90	49.96	SH-30	LATH	20	1		172	15	10	2	pine			Schulz 1997
P 2267	1090,60	2079,85	49.96	SH-30	LATH	20	1		262	20	7	3	pine?			Schulz 1997
P 2268	1090,47	2079,85	49.96	SH-30	NATURAL PIECE OF WOOD	1	1		240	24	25	2	pine			Schulz 1997
P 2269	1090,52	2080,10	49.96	SH-30	NATURAL PIECE OF WOOD	1	1		132	50	8	2	pine bark, oblique end			Schulz 1997
P 2270	1090,62	2079,50	49.95	SH-30	LATH	20	1		567	14	11	3	oblique end, pine			Schulz 1997
P 2271	1090,95	2079,65	49.97	SH-30	LATH	20	1		439	18	11	2	pine			Schulz 1997
P 2272	1090,90	2079,60	49.97	SH-30	LATH	20	1		309	15	12	3	pine			Schulz 1997
P 2273	1090,82	2079,65	49.98	SH-30	LATH	20	1		584	14	14	2	aspen, possibly cut mark at one end			Schulz 1997
P 2274	1090,77	2080,20	49.95	SH-30	NATURAL PIECE OF WOOD	10	1		1480	300	235	1	pine			Schulz 1997
P 2275	1090,84	1999,69	50.26	H/SH	NATURAL PIECE OF WOOD	2	1		128	25	11	3				Schulz 1997
P 2276	1200,71	1999,67	50.28	H/SH	LATH	20	1		90	14	8	3	pine			Schulz 1997
P 2277	1200,74	1999,71	50.28	H/SH	NATURAL PIECE OF WOOD	2	1		140	10	10	4	branch, hardwood			Schulz 1997
P 2278	1200,36	1999,60	50.26	H/SH	LATH	20	2		265	22	19	3	pine			Schulz 1997
P 2279	1200,51	1999,63	50.26	H/SH	WORKED WOOD	10	1		302	61	15	2	possibly wood working debris, pine, deformed after conservation		124	Schulz 1997
P 2280	1200,70	1999,68	50.25	H/SH	LATH	20	2		263	18	8	3	pine			Schulz 1997
P 2281	1200,60	1999,65	50.26	H/SH	LATH	20	2		332	25	10	2	one end rounded, pine			Schulz 1997
P 2282	1200,63	1999,72	50.25	H/SH	LATH	20	2		400	20	8	2	binding depression, pine			Schulz 1997
P 2283	1200,27	1999,54	50.23	H/SH	WORKED WOOD	10	1		135	36	15	1	one end rounded, the other cut straight, pine			Schulz 1997
P 2284	1200,60	1999,73	50.26	H/SH	NATURAL PIECE OF WOOD	1	1		447	40	31	3	birch			Schulz 1997
P 2285	1201,00	1999,85	50.25	H/SH	WORKED WOOD	20	1		140	37	28	1	pentagonal cross-section, pine			Schulz 1997
P 2286	1200,73	1999,70	50.24	H/SH	LATH	20	1		255	18	11	1	pine			Schulz 1997
P 2287	1200,70	1999,85	50.29	H/SH	LATH	20	1		285	18	15	1	pine			Schulz 1997
P 2288																Schulz 1997
P 2289	1200,39	1999,63	50.26	H/SH	LATH	20	1		205	16	10	3	pine			Schulz 1997
P 2290	1200,43	1999,65	50.26	H/SH	LATH	20	1		116	16	10	3	pine			Schulz 1997
P 2291	1200,00	1999,47	50.25	H/SH	LATH	20	1		430	17	9	2	binding depression, pine			Schulz 1997

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wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 2292	1200,17	1999,69	50.26	H/SH	LATH	20	1		146	16	12	3	pine			Schulz 1997
P 2293	1201,07	2000,05	50.28	H/SH	LATH	20	1		644	15	9	3	pine			Schulz 1997
P 2294	1199,62	1999,41	50.26	H/SH	LATH	20	2		111	18	12	3	pine			Schulz 1997
P 2295	1199,84	1999,53	50.27	H/SH	NATURAL PIECE OF WOOD	10	2		131	23	5	5	pine			Schulz 1997
P 2296	1199,67	1999,58	50.28	H/SH	NATURAL PIECE OF WOOD	10	1		448	20	15	3	hardwood			Schulz 1997
P 2297	1199,65	1999,63	50.25	H/SH	NATURAL PIECE OF WOOD	10	1		482	26	25	2	pine			Schulz 1997
P 2298	1197,78	1999,84	50.29	H/SH	STAKE	20	1		760	30	28	1	rounded ends, deformed in water, pine		125	Schulz 1997
P 2299	1200,93	2000,27	50.26	H/SH	LATH	20	1		450	20	11	3	oblique end, pine			Schulz 1997
P 2300	1200,99	2000,25	50.24	H/SH	WORKED WOOD	10	1		441	31	29	1	one end cut oblique, pine			Schulz 1997
P 2301	1201,03	2000,24	50.25	H/SH	LATH	20	1		300	16	15	2	one end angular, the other cut oblique, pine			Schulz 1997
P 2302	1201,33	2000,38	50.23	H/SH	NATURAL PIECE OF WOOD	10	1		366	31	27	4	oblique end, hardwood			Schulz 1997
P 2303	1201,09	2000,99	50.24	H/SH	LATH	20	1		159	14	11	2	grooves, pine			Schulz 1997
P 2304	1200,97	2000,27	50.27	H/SH	NATURAL PIECE OF WOOD	2	1		168	9	8	2	branch, pine			Schulz 1997
P 2305	1201,19	2000,29	50.23	H/SH	LATH	20	1		240	20	10	3	end possibly rounded pine			Schulz 1997
P 2306	1201,03	2000,24	50.25	H/SH	LATH	20	1		236	25	11	3	one end rounded, pine			Schulz 1997
P 2307	1200,72	2000,05	50.25	H/SH	NATURAL PIECE OF WOOD	2	1		277	9	7	3	branch, hardwood			Schulz 1997
P 2308	1200,97	2000,10	50.27	H/SH	WORKED WOOD	20	1		219	53	23	2	chisel-shaped end, elaborate tool marks, pine		126	Schulz 1997
P 2309	1200,77	2000,06	50.25	H/SH	LATH	20	1		215	21	16	1	possibly oblique end, pine			Schulz 1997
P 2310	1201,15	2000,07	50.23	H/SH	NATURAL PIECE OF WOOD	2	1		197	36	15	3	branch, pine			Schulz 1997
P 2311	1199,62	1999,49	50.26	H/SH	NATURAL PIECE OF WOOD	1	1		195	21	15	3	branch, pine			Schulz 1997
P 2312	1199,65	1999,51	50.25	H/SH	LATH	20	1		155	10	2	3	one end rounded, pine			Schulz 1997
P 2313	1199,80	1999,90	50.26	H/SH	LATH	20	1		247	15	10	3	pine			Schulz 1997
P 2314	1200,08	1999,94	50.25	H/SH	LATH	20	1		98	24	9	2	pine			Schulz 1997
P 2315	1200,21	1999,97	50.25	H/SH	LATH	20	1		444	17	12	3	possibly binding grooves, pine			Schulz 1997
P 2316	1199,71	1999,94	50.27	H/SH	NATURAL PIECE OF WOOD	2	1		157	40	39	3	branch, pine			Schulz 1997
P 2317	1199,72	1999,59	50.25	H/SH	LATH	20	1		444	16	10	3	pine			Schulz 1997
P 2318	1199,83	1999,75	50.27	H/SH	WORKED WOOD	10	1		762	25	20	1	deformed in water, pine		127	Schulz 1997
P 2319	1199,80	1999,65	50.25	H/SH	LATH	20	1		215	25	11	2	two notches		128	Schulz 1997
P 2320	1199,59	1999,74	50.26	H/SH	LATH	20	1		403	23	10	2				Schulz 1997
P 2321	1200,58	1999,96	50.23	H/SH	NATURAL PIECE OF WOOD	2	1		475	21	21	3	hardwood wood sample			Schulz 1997
P 2322	1201,50	2000,36	50.24	H/SH	STAKE	10	1		2141	24	22	2	pointed, hardwood			Schulz 1997
P 2323	1200,64	1999,80	50.30	H/SH	LATH	20	1		216	15	13	3				Schulz 1997
P 2324	1200,99	1999,95	50.29	H/SH	NATURAL PIECE OF WOOD	10	1		310	53	45	4	point oblique, deformed in water, hardwood		129	Schulz 1997
P 2325	1200,25	1999,75	50.25	H/SH	PILE	10	1		853	67	55	4	point oblique, end cut straight, birch			Schulz 1997
P 2326	1200,13	1999,97	50.21	H/SH	NATURAL PIECE OF WOOD	1	1		288	90	30	3	pine			Schulz 1997
P 2327	1200,47	1999,77	50.30	H/SH	NATURAL PIECE OF WOOD	2	1		250	50	20	3	hardwood			Schulz 1997
P 2328	1199,60	1999,40	50.24	H/SH	LATH	20	1		1461	22	12	3	triangular point in cross-section, end cut straight, hardwood?			Schulz 1997
P 2329	1200,25	1999,64	50.29	H/SH	LATH	20	1		491	19	11	2	binding depression, hardwood		130	Schulz 1997
P 2330	1200,31	1999,79	50.28	H/SH	NATURAL PIECE OF WOOD	10	1		335	50	41	3	peg-shaped point, end possibly rounded, hardwood			Schulz 1997
P 2331	1200,40	1999,72	50.30	H/SH	LATH	20	1		451	16	13	2	oblique end			Schulz 1997
P 2332	1200,32	1999,83	50.23	H/SH	NATURAL PIECE OF WOOD	2	1		77	18	12	6	pine			Schulz 1997
P 2333	1199,23	1999,54	50.28	H/SH	NATURAL PIECE OF WOOD	1	1		403	110	50	2	tree stump, pine			Schulz 1997
P 2334	1199,60	1999,44	50.25	H/SH	LATH	20	1		329	27	18	1	rounded end			Schulz 1997
P 2335	1200,06	1999,75	50.28	H/SH	LATH	20	1		709	17	12	2	oblique end			Schulz 1997
P 2336	1200,52	1999,94	50.28	H/SH	LATH	20	1		166	16	14	1	binding depression		131	Schulz 1997
P 2337	1200,65	1999,95	50.28	H/SH	WORKED WOOD	10	1		230	32	21	2	one end cut straight, hardwood			Schulz 1997
P 2338	1200,40	1999,89	50.26	H/SH	WORKED WOOD	20	1		365	43	20	5	plank-shaped object, rounded ends, hardwood		132	Schulz 1997
P 2339	1201,18	1999,88	50.22	H/SH	LATH	20	1		323	20	13	3	triangular cross-section			Schulz 1997
P 2340	1201,17	1999,91	50.22	H/SH	LATH	20	1		250	10	5	3	oblique end			Schulz 1997
P 2341	1201,24	2000,08	50.29	H/SH	LATH	20	1		155	19	6	3				Schulz 1997
P 2342	1201,14	1999,95	50.21	H/SH	LATH	20	1		76	24	10	3	triangular cross-section			Schulz 1997
P 2343	1063,10	2033,60	50.02	SH	NATURAL PIECE OF WOOD	1	1		41	19	17	2	pine cone			Schulz 1997
P 2344	1067,50	2034,95	50.06	SH	LATH	20	1		244	18	3	3	fragments			Schulz 1997
P 2345	1066,75	2034,75	50.03	SH	NATURAL PIECE OF WOOD	1	1		253	17	14	2	branch, hardwood			Schulz 1997
P 2346	1066,20	2035,00	50.06	SH	LATH	20	1		207	20	11	1				Schulz 1997
P 2347	1067,22	2037,15	50.03	SH	LATH	20	1		253	13	7	3	fragments			Schulz 1997
P 2348	1067,23	2037,45	50.05	SH	LATH	20	1		169	8	6	3				Schulz 1997
P 2349	1066,62	2037,97	50.04	SH	NATURAL PIECE OF WOOD	10	1		210	26	8	3	possibly tool marks at one end, pine			Schulz 1997
P 2350	1066,40	2038,00	50.03	SH	LATH	20	1		885	23	12	2	fragments, one end rounded			Schulz 1997
P 2351	1066,30	2039,27	50.04	SH	LATH	20	1		220	10	7	3	thin			Schulz 1997
P 2352	1067,00	2039,10	50.04	SH	LATH	20	1		131	19	12	2				Schulz 1997
P 2353	1066,18	2040,63	49.99	SH	NATURAL PIECE OF WOOD	2	1		265	20	20	2	branch, pine			Schulz 1997
P 2354	1064,95	2039,25	50.07	SH	LATH	20	1		192	25	10	2				Schulz 1997
P 2355	1065,10	2038,92	50.07	SH	LATH	20	1		65	20	7	2				Schulz 1997
P 2356	1065,50	2039,35	50.07	SH	LATH	20	1		157	24	6	3	rounded end			Schulz 1997
P 2357	1065,63	2039,15	50.08	SH	NATURAL PIECE OF WOOD	1	1		77	30	2	3	pine bark			Schulz 1997
P 2358	1064,63	2037,05	50.05	SH	NATURAL PIECE OF WOOD	1	1		153	40	2	2	pine bark			Schulz 1997
P 2359	1069,95	2035,00	49.99	SH	LATH	20	1		266	19	9	2				Schulz 1997
P 2360	1069,55	2034,97	50.02	SH	NATURAL PIECE OF WOOD	1	1		203	12	10	4	branch, hardwood			Schulz 1997
P 2361	1069,50	2035,45	50.02	SH	NATURAL PIECE OF WOOD	10	1		140	44	23	4	cut off piece, pine			Schulz 1997
P 2362	1069,00	2035,15	50.03	SH	NATURAL PIECE OF WOOD	2	1		154	11	10	4	branch, hardwood			Schulz 1997
P 2363	1068,95	2035,40	50.05	SH	LATH	20	1		119	27	16	4	rounded end, pine			Schulz 1997
P 2364	1068,50	2035,62	50.07	SH	NATURAL PIECE OF WOOD	2	1		193	22	7	4	branch, hardwood			Schulz 1997
P 2365	1068,65	2035,65	50.09	SH	NATURAL PIECE OF WOOD	2	1		178	32	15	4	hardwood			Schulz 1997
P 2366	1068,45	2035,67	50.08	SH	NATURAL PIECE OF WOOD	1	1		70	27	2	3	pine bark			Schulz 1997
P 2367	1068,23	2035,80	50.08	SH	NATURAL PIECE OF WOOD	1	1		96	27	2	3	pine bark			Schulz 1997
P 2368	1069,82	2036,85	50.03	SH	NATURAL PIECE OF WOOD	2	1		77	9	9	3	branch, hardwood			Schulz 1997
P 2369	1068,95	2037,20	50.07	SH	LATH	20	1		94	13	7	3				Schulz 1997
P 2370	1069,25	2038,10	50.05	SH	LATH	20	1		215	12	7	4				Schulz 1997
P 2371	1068,33	2038,34	50.06	SH	LATH	20	1		145	16	12	4	in two pieces, hardwood			Schulz 1997
P 2372	1068,27	2038,65	50.02	SH	NATURAL PIECE OF WOOD	2	1		205	9	8	3	branch, pine			Schulz 1997
P 2373	1068,52	2038,93	50.04	SH	NATURAL PIECE OF WOOD	2	1		188	12	10	3	branch, hardwood			Schulz 1997
P 2374	1068,55	2038,92	50.04	SH	LATH	20	1		145	15	12	3				Schulz 1997
P 2375	1201,63	1998,82	50.23	H/SH	LATH	20	1	80	861	24	22	3	pine			Schulz 1997
P 2376	1197,17	2001,12	50.20	H/SH	LATH	20	1	380	915	19	15	3	in four pieces, pine			Schulz 1997
P 2377	1197,84	1999,93	50.20	H/SH	LATH	20	1	75	115	9	5	3	pine			Schulz 1997
P 2378	1197,53	2000,48	50.23	H/SH	LATH	20	1	91	105	20	8	4	pine			Schulz 1997
P 2379	1197,76	2000,32	50.25	H/SH	NATURAL PIECE OF WOOD	2	1	394	119	9	6	3	branch, pine			Schulz 1997
P 2380	1193,95	2000,03	50.20	H/SH	LATH	20	1	102	317	14	8	2	oblique end, pine			Schulz 1997
P 2381	1197,72	1998,48	50.20	H/SH	WORKED WOOD	20	1	160	495	50	38	1	halved and worked, pine			Schulz 1997
P 2382	1197,50	1998,37	50.20	H/SH	NATURAL PIECE OF WOOD	10	1		254	75	36	3	hardwood			Schulz 1997
P 2383	1068,55	2033,22	49.96	SH	WOODEN ARTEFACT	20	1		268	122	44	1	pine bark net float, binding depression in the edge, both ends cut,			Schulz 1997
P 2384	1069,50	2035,00	49.95	SH	LATH	20	1		1435	24	12	3	oblique end, pine			Schulz 1997
P 2385	1068,88	2035,87	49.95	SH	LATH	20	1		602	17	12	3	pine			Schulz 1997
P 2386	1068,61	2035,77	49.99	SH	NATURAL PIECE OF WOOD	10	1		235	28	23	2	pine			Schulz 1997
P 2387	1068,45	2036,52	49.98	SH	NATURAL PIECE OF WOOD	2	1		249	23	21	2	hardwood			Schulz 1997
P 2388	1068,20	2036,95	50.00	SH	LATH	20	1		224	21	11	2	pine			Schulz 1997
P 2389	1068,72	2037,10	49.96	SH	LATH	20	2		423	17	12	2	pine			Schulz 1997
P 2390	1068,35	2037,45	50.03	SH	LATH	20	1		136	12	10	3	pine			Schulz 1997
P 2391	1068,25	2037,82	50.02	SH	LATH	20	1		395	16	8	3	pine			Schulz 1997
P 2392	1069,31	2037,87	50.00	SH	NATURAL PIECE OF WOOD	2	1		334	23	17	3	pine			Schulz 1997
P 2393	1068,50	2038,45	50.01	SH	LATH	20	1		275	18	10	2	pine			Schulz 1997
P 2394	1069,30	2036,35	49.97	SH	LATH	20	1		101	21	7	3	pine			Schulz 1997
P 2395	1069,40	2039,00	50.03	SH	LATH	20	1		259	30	11	2	pine			Schulz 1997
P 2396	1069,67	2039,27	50.02	SH	NATURAL PIECE OF WOOD	1	1		312	16	10	5	branch, hardwood			Schulz 1997
P 2397	1068,95	2039,20	50.00	SH	LATH	20	1		136	26	8	3	one end rounded, cut mark in the middle, pine			Schulz 1997
P 2398	1069,22	2039,22	49.97	SH	NATURAL PIECE OF WOOD	2	1		234	34	29	2	pine			Schulz 1997
P 2399	1067,12	2033,75	49.99	SH	NATURAL PIECE OF WOOD	1	1		248	7	6	4	branch, hardwood			Schulz 1997
P 2400	1067,37	2033,86	50.00	SH	NATURAL PIECE OF WOOD	1	1		227	6	5	4	branch, hardwood			Schulz 1997
P 2401	1067,41	2033,89	50.00	SH	NATURAL PIECE OF WOOD	1	1		86	7	5	4	branch, hardwood			Schulz 1997
P 2402	1066,95	2035,10	50.04	SH	LATH	20	1		74	15	4	3	pine			Schulz 1997
P 2403	1067,41	2035,32	50.02	SH	NATURAL PIECE OF WOOD	1	1		67	18	2	3	pine bark			Schulz 1997
P 2404	1067,42	2035,96	50.02	SH	LATH	20	1		135	17	5	3	rounded ends, pine			Schulz 1997
P 2405	1066,92	2036,37	50.06	SH	LATH	20	1		1283	23	10	1	end in trench section, pine			Schulz 1997
P 2406	1067,42	2037,15	50.05	SH	LATH	20	1		105	17	7	2	pine			Schulz 1997
P 2407	1066,80	2036,17	50.05	SH	NATURAL PIECE OF WOOD	2	1		136	21	8	3	branch, pine			Schulz 1997
P 2408	1066,13	2036,67	50.04	SH	LATH	20	1		312	16	11	3	end in trench section, pine			Schulz 1997
P 2409	1066,37	2036,33	50.04	SH	NATURAL PIECE OF WOOD	1	1		179	7	7	4	branch, hardwood			Schulz 1997
P 2410	1067,79	2036,37	50.02	SH	LATH	20	1		58	25	6	3	oblique end			Schulz 1997
P 2411	1066,69	2038,20	50.01	SH	NATURAL PIECE OF WOOD	1	1		140	8	6	4	branch, hardwood			Schulz 1997
P 2412	1066,24	2039,96	50.05	SH	LATH	20	1		145	15	8	3	rounded end, pine			Schulz 1997
P 2413	1066,19	2039,79	50.01	SH	NATURAL PIECE OF WOOD	1	1		137	17	2	1	pine bark			Schulz 1997
P 2414	1066,18	2039,80	49.98	SH	LATH	20	1		265	19	13	3	pine			Schulz 1997
P 2415	1067,08	2040,87	50.01	SH	NATURAL PIECE OF WOOD	1	1		250	14	11	5	branch			Schulz 1997
P 2416	1064,74	2039,29	50.06	SH	WORKED WOOD	20	1		346	79	10	5	plank-shaped piece			Schulz 1997
P 2417	1064,47	2039,37	50.06	SH	LATH	20	1		308	21	13	2	pine			Schulz 1997
P 2418	1065,05	2039,49	50.05	SH	LATH	20	1		138	28	17	2	pine			Schulz 1997
P 2419	1064,84	2038,93	50.04	SH	LATH	20	1		328	15	12	3	pine			Schulz 1997

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 2420	1065,28	2039,13	50.05	SH	NATURAL PIECE OF WOOD	1	1		77	26	5	3	birch bark			Schulz 1997
P 2421	1065,78	2039,24	50.07	SH	NATURAL PIECE OF WOOD	2	1		327	15	12	4	branch, hardwood			Schulz 1997
P 2422	1064,94	2038,44	50.07	SH	NATURAL PIECE OF WOOD		1		92	22	3	5	pine bark			Schulz 1997
P 2423	1064,88	2033,00	49.93	SH	LATH	20	1		784	18	11	2	end in trench section, pine			Schulz 1997
P 2424	1065,37	2033,27	49.94	SH	LATH	20	1		564	26	10	3	pine			Schulz 1997
P 2425	1065,25	2033,87	49.99	SH	LATH	20	1		119	21	10	4	pine			Schulz 1997
P 2426	1065,33	2034,32	49.99	SH	LATH	20	1		384	30	9	4	pine			Schulz 1997
P 2427	1065,13	2034,05	49.98	SH	LATH	20	1		117	12	5	4	pine			Schulz 1997
P 2428	1064,12	2034,03	49.98	SH	LATH	20	1		178	13	6	2	pine			Schulz 1997
P 2429	1065,11	2035,19	50.03	SH	WORKED WOOD	20	1		180	52	17	2	flat piece of wood, possible cut marks at the edge, deformed in water		133	Schulz 1997
P 2430	1067,23	2034,70	50.00	SH	WORKED WOOD	20	1		90	25	6	3	pine			Schulz 1997
P 2431	1063,83	2033,07	50.00	SH	LATH	20	1		233	22	14	3	pine			Schulz 1997
P 2432	1063,29	2033,27	50.00	SH	LATH	20	1		87	25	5	4	pine			Schulz 1997
P 2433	1063,42	2033,34	50.01	SH	LATH	20	1		243	19	11	3	oblique end, pine			Schulz 1997
P 2434	1062,40	2033,87	49.97	SH	NATURAL PIECE OF WOOD	2	1		310	20	18	4	hardwood			Schulz 1997
P 2435	1062,99	2033,40	50.01	SH	LATH	20	1		284	22	18	3	pine			Schulz 1997
P 2436	1062,92	2033,47	49.99	SH	LATH	20	1		92	21	7	3	pine			Schulz 1997
P 2437	1062,99	2033,97	49.99	SH	NATURAL PIECE OF WOOD	1	1		525	22	13	4	hardwood			Schulz 1997
P 2438	1062,90	2033,88	49.99	SH	WORKED WOOD	20	1		80	15	10	3	pine			Schulz 1997
P 2439	1063,78	2033,68	50.00	SH	NATURAL PIECE OF WOOD		1		94	27	3	3	pine bark			Schulz 1997
P 2440	1063,65	2033,67	50.00	SH	NATURAL PIECE OF WOOD	2	1		127	15	12	4	branch, hardwood			Schulz 1997
P 2441	1063,61	2033,78	50.00	SH	LATH	20	1		55	15	4	3	pine			Schulz 1997
P 2442	1063,09	2033,90	50.00	SH	NATURAL PIECE OF WOOD	2	1		163	28	10	4	pine			Schulz 1997
P 2443	1063,52	2034,09	50.02	SH	LATH	20	1		126	15	6	3	pine			Schulz 1997
P 2444	1063,26	2034,47	50.03	SH	LATH	20	1		100	24	14	3	pine			Schulz 1997
P 2445	1062,65	2034,27	50.03	SH	NATURAL PIECE OF WOOD	2	1		118	19	17	4	hardwood			Schulz 1997
P 2446	1062,91	2034,30	50.00	SH	LATH	20	1		118	20	5	4	pine			Schulz 1997
P 2447	1063,62	2034,65	50.02	SH	LATH	20	1		95	14	9	3	oblique end, pine -7-			Schulz 1997
P 2448	1063,68	2034,69	50.02	SH	NATURAL PIECE OF WOOD	10	1		81	30	5	5	pine			Schulz 1997
P 2449	1063,80	2034,56	49.99	SH	LATH	20	1		55	16	9	3	pine			Schulz 1997
P 2450	1065,22	2034,67	50.00	SH	NATURAL PIECE OF WOOD	10	1		315	20	12	4	pine			Schulz 1997
P 2451	1065,32	2034,68	50.00	SH	NATURAL PIECE OF WOOD	1	1		218	11	10	4	branch, hardwood			Schulz 1997
P 2452	1065,42	2034,70	50.00	SH	LATH	20	1		83	14	9	2	pine			Schulz 1997
P 2453	1065,14	2034,74	50.00	SH	NATURAL PIECE OF WOOD	2	1		204	7	6	3	branch, pine			Schulz 1997
P 2454	1065,05	2034,79	50.00	SH	LATH	20	1		96	8	3	5	pine			Schulz 1997
P 2455	1064,75	2035,30	50.01	SH	LATH	20	1		1052	22	12	2	possible binding depression, pine, erroneous number?		134	Schulz 1997
P 2456	1065,62	2036,11	50.03	SH	LATH	20	1		117	19	7	3	pine, erroneous number, pointed stick or a natural piece of wood at Kierikki			Schulz 1997
P 2457	1065,55	2036,04	50.03	SH	LATH	20	1		72	14	10	3	pine			Schulz 1997
P 2458	1065,42	2036,46	50.03	SH	NATURAL PIECE OF WOOD	2	1		105	15	8	3	hardwood			Schulz 1997
P 2459	1065,49	2036,51	50.03	SH	NATURAL PIECE OF WOOD	1	1		144	10	9	3	branch, hardwood			Schulz 1997
P 2460	1064,83	2035,92	50.03	SH	LATH	20	1		363	32	22	2	two notches at one edge, pine		135	Schulz 1997
P 2461	1064,64	2036,03	50.02	SH	NATURAL PIECE OF WOOD	2	1		539	16	11	4	hardwood			Schulz 1997
P 2462	1064,80	2036,47	50.05	SH	LATH	20	1		144	17	6	3	pine			Schulz 1997
P 2463	1064,12	2035,40	50.00	SH	LATH	20	1		1055	15	15	3	pine			Schulz 1997
P 2464	1064,53	2036,50	50.04	SH	LATH	20	1		204	16	15	2	pine			Schulz 1997
P 2465	1064,28	2036,85	50.03	SH	LATH	20	1		96	20	11	4	pine			Schulz 1997
P 2466	1064,11	2036,85	50.03	SH	NATURAL PIECE OF WOOD		1		74	14	5	3	pine bark			Schulz 1997
P 2467	1064,12	2037,37	50.04	SH	LATH	20	1		148	22	3	4	pine			Schulz 1997
P 2468	1065,17	2037,25	50.05	SH	LATH	20	1		315	15	12	2	pine			Schulz 1997
P 2469	1065,54	2037,65	50.05	SH	WORKED WOOD	10	1		75	48	12	3	hardwood			Schulz 1997
P 2470	1064,87	2037,49	50.05	SH	NATURAL PIECE OF WOOD	2	1		203	14	7	5	branch, hardwood			Schulz 1997
P 2471	1064,81	2037,50	50.05	SH	NATURAL PIECE OF WOOD	2	1		45	88	6	5	branch, hardwood			Schulz 1997
P 2472	1064,52	2037,65	50.05	SH	LATH	20	1		137	16	15	2	pine			Schulz 1997
P 2473	1065,74	2038,20	50.05	SH	LATH	20	1		365	17	14	2	pine			Schulz 1997
P 2474	1065,28	2038,00	50.05	SH	NATURAL PIECE OF WOOD	1	1		100	19	18	3	hardwood			Schulz 1997
P 2475	1065,51	2038,00	50.05	SH	NATURAL PIECE OF WOOD	1	1		115	12	12	2	hardwood			Schulz 1997
P 2476	1065,60	2038,05	50.05	SH	NATURAL PIECE OF WOOD	1	1		191	5	4	4	branch, hardwood			Schulz 1997
P 2477	1065,52	2038,79	50.05	SH	LATH	20	1		224	8	7	4	pine			Schulz 1997
P 2478	1065,74	2038,90	50.05	SH	NATURAL PIECE OF WOOD	10	1		110	34	15	4	hardwood			Schulz 1997
P 2479	1065,68	2038,92	50.05	SH	LATH	20	1		69	15	10	3	pine			Schulz 1997
P 2480	1202,38	1990,45	50.05	SH	PILE	10	1		2068	101	88	3	tapering point, wedge-shaped end, hardwood			Schulz 1997
P 2481	1201,65	1989,55	50.05	SH	PILE	10	1		853	74	63	3	complete, tapering point, end cut straight and rounded, hardwood		136	Schulz 1997
P 2482	1201,38	1989,15	50.05	SH	PILE	10	1		1939	73	73	1	complete, peg-shaped end, pencil-shaped point (8 facets), long and well preserved, exhibit at Kierikki		137	Schulz 1997
P 2483	1201,70	1989,40	50.05	SH	WEDGE	10	1		829	63	63	1	wedge-shaped point, oblique end, pine, slightly deformed in water		138	Schulz 1997
P 2484	1201,47	1989,80	50.03	SH	WORKED WOOD	10	1		745	25	24	4	tapering point, end cut straight, carved stick, hardwood			Schulz 1997
P 2485	1201,11	1989,41	50.03	SH	LATH	20	1		1432	28	25	2	binding depression, oblique end, pine		139	Schulz 1997
P 2486	1201,56	1989,65	50.03	SH	LATH	20	1		998	24	19	2	pine			Schulz 1997
P 2487	1201,79	1989,89	50.03	SH	NATURAL PIECE OF WOOD	2	1		1480	21	21	2	cut off		140	Schulz 1997
P 2488	1201,29	1989,39	50.03	SH	NATURAL PIECE OF WOOD	10	1		458	28	27	2	rounded end or deformed in water, pine		141	Schulz 1997
P 2489	1201,72	1989,71	50.03	SH	LATH	20	1		362	22	16	3	pine			Schulz 1997
P 2490	1201,90	1990,05	50.03	SH	NATURAL PIECE OF WOOD	2	1		131	25	23	2	end possibly rounded, pine			Schulz 1997
P 2491	1201,67	1989,38	50.04	SH	WORKED WOOD	10	1		178	20	11	2	baton-shaped object, pine			Schulz 1997
P 2492	1202,00	1989,74	50.04	SH	LATH	20	1		681	17	5	3	fragments, pine			Schulz 1997
P 2493	1205,55	1988,98	49.98	SH	STAKE	10	1		1217	34	30	1	complete, point halved and pointed,rounded end, pine		142	Schulz 1997
P 2494	1205,92	1988,97	49.98	SH	LATH	20	1		657	19	9	1	pine			Schulz 1997
P 2495	1206,07	1989,04	49.98	SH	LATH	20	1		256	27	14	1	oblique end, pine			Schulz 1997
P 2496	1066,55	2035,25	50.00	SH	WORKED WOOD	10	1		1618	56	53	3	trimmed, root end recovered, point in trench section, birch			Schulz 1997
P 2497	1067,70	2035,10	50.02	SH	LATH	20	1		478	16	15	1	binding depression at one end, pine			Schulz 1997
P 2498	1207,75	1990,70	50.02	SH	LATH	20	1		335	21	17	3	oblique end, pine			Schulz 1997
P 2499	1207,85	1990,95	50.03	SH	LATH	20	1		962	14	12	1	pine			Schulz 1997
P 2500	1208,27	1990,35	50.05	SH	LATH	20	1		135	13	11	3	rounded end, pine			Schulz 1997
P 2501	1207,93	1990,87	50.04	SH	NATURAL PIECE OF WOOD	10	1		299	17	16	3	one end rounded, pine			Schulz 1997
P 2502	1208,35	1991,18	50.05	SH	LATH	20	1		535	14	11	2	pine			Schulz 1997
P 2503	1197,08	1991,05	50.10	SH	NATURAL PIECE OF WOOD	10	1		185	50	18	1	pine			Schulz 1997
P 2504	1199,70	1993,03	50.04	SH	LATH	20	1		284	14	10	2	pointed stick, pine		143	Schulz 1997
P 2505	1200,49	1993,12	50.06	SH	WORKED WOOD	20	1		126	38	20	1	pine			Schulz 1997
P 2506	1202,57	1995,00	50.02	SH	PILE	10	1		307	45	43	2	broken at both ends, pine			Schulz 1997
P 2507	1208,10	1992,00	50.03	SH	LATH	20	1		727	16	10	2	pine			Schulz 1997
P 2508	1208,10	1992,13	50.02	SH	LATH	20	1		362	25	11	3	oblique end, pine			Schulz 1997
P 2509	1208,40	1991,77	50.04	SH	LATH	20	1		357	21	15	3	oblique end, the other rounded, pine			Schulz 1997
P 2510	1208,50	1992,00	50.04	SH	LATH	20	1		133	18	9	3	end cut straight, pine			Schulz 1997
P 2511	1208,44	1994,45	50.01	SH	LATH	20	1		514	19	18	3	pine			Schulz 1997
P 2512	1208,39	1994,46	50.01	SH	LATH	20	1		519	15	15	1	oblique end, pine			Schulz 1997
P 2513	1208,46	1994,96	50.04	SH	LATH	20	1		865	20	11	4	pine			Schulz 1997
P 2514	1209,00	1993,08	49.96	SH	STAKE	10	1		1324	45	34	4	thin tapering point, rounded end, hardwood			Schulz 1997
P 2515	1209,59	1993,71	50.03	SH	LATH	20	1		494	19	10	1	oblique end, pine			Schulz 1997
P 2516	1209,67	1993,70	50.04	SH	LATH	20	1		280	21	15	3	pine			Schulz 1997
P 2517	1209,93	1993,96	50.00	SH	PILE	10	1		1840	65	50	4	tapering point, rounded end, hardwood			Schulz 1997
P 2518	1211,04	1994,55	49.89	SH	NATURAL PIECE OF WOOD	2	2		840	30	30	2	hardwood			Schulz 1997
P 2519	1211,19	1994,03	49.95	SH	NATURAL PIECE OF WOOD	2	2		358	28	20	3	hardwood			Schulz 1997
P 2520	1210,05	1993,65	50.06	SH	LATH	20	1		445	23	8	2	pine			Schulz 1997
P 2521	1212,01	1994,43	50.07	SH	PILE	10	1		907	69	60	1	tapering point, pine			Schulz 1997
P 2522	1211,47	1994,23	50.03	SH	PILE	10	1		1519	63	65	1	tapering point, pine			Schulz 1997
P 2523	1207,15	1990,80	49.98	SH	POLE	10	1		3589	47	46	1	peg-shaped point, forked end, pine, poor preservation after conservation, hard to handle		144	Schulz 1997
P 2524	1201,81	1989,42	50.03	SH	NATURAL PIECE OF WOOD	1	1		79	20	18	3	hardwood			Schulz 1997
P 2525	1202,46	1990,95	50.10	SH	WORKED WOOD	10	1		284	53	43	2	surface cut straight, pine			Schulz 1997
P 2526	1202,87	1989,55	50.10	SH	LATH	20	1		541	19	13	3	in four pieces, pine			Schulz 1997
P 2527	1203,32	1989,50	50.07	SH	PILE	10	1		1525	65	54	3	forked point, rounded end, hardwood, poor preservation		145	Schulz 1997
P 2528	1202,69	1989,24	50.05	SH	LATH	20	1		654	16	10	2	in two pieces, pine			Schulz 1997
P 2529	1201,77	1989,28	50.05	SH	NATURAL PIECE OF WOOD	2	1		783	19	17	3	branch, pointed end, hardwood			Schulz 1997
P 2530	1202,90	1989,28	50.05	SH	LATH	20	1		535	16	14	3	in three pieces, pine			Schulz 1997
P 2531	1202,80	1989,50	50.05	SH	LATH	20	1		1041	16	12	2	binding depression, oblique and rounded, pine		146	Schulz 1997
P 2532	1203,43	1989,37	50.05	SH	PILE	10	1		1078	49	40	3	small pile, both ends worked, hardwood, no tool marks observable after conservation		147	Schulz 1997
P 2533	1207,16	1990,90	50.02	SH	LATH	20	1		302	17	13	3	pine			Schulz 1997
P 2534	1204,70	1989,91	50.02	SH	LATH	20	1		374	20	9	3	pine			Schulz 1997
P 2535	1204,84	1989,37	50.04	SH	LATH	20	1		322	20	13	2	in trench profile, pine			Schulz 1997
P 2536	1205,26	1989,20	50.05	SH	LATH	20	1		345	20	13	2	pine			Schulz 1997
P 2537	1205,67	1989,60	50.06	SH	LATH	20	1		2427	23	14	2	in four pieces, pine		148	Schulz 1997

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 2538	1206,36	1989,16	49.98	SH	NATURAL PIECE OF WOOD	10	1		428	42	40	2	alnus			Schulz 1997
P 2539	1205,29	1989,28	49.98	SH	PILE	10	1		960	48	46	1	pine			Schulz 1997
P 2540	1205,50	1989,07	49.98	SH	LATH	20	1		476	18	13	3	pine			Schulz 1997
P 2541	1211,86	1994,22	50.02	SH	NATURAL PIECE OF WOOD	2	1		1109	36	30	1				Schulz 1997
P 2542	1211,53	1994,07	50.07	SH	PILE	20	1		1020	81	77	3	complete, one end rounded, tapering point, hardwood		149	Schulz 1997
P 2543	1211,55	1991,01	50.08	SH	STAKE	10	1		1300	39	38	1	oblique end, tapering point, pine		150	Schulz 1997
P 2544	1211,65	1993,87	50.10	SH	WEDGE	20	1		442	72	62	2	complete, wedge-shaped point, end cut straight, pine		151	Schulz 1997
P 2545	1211,82	1994,27	49.97	SH	LATH	20	1		934	17	5	2	end cut straight, pine			Schulz 1997
P 2546	1211,58	1994,35	49.97	SH	LATH	20	1		394	21	12	1	pine			Schulz 1997
P 2547	1211,58	1994,00	50.01	SH	LATH	20	2		940	15	15	3	pine			Schulz 1997
P 2548	1211,94	1993,90	50.10	SH	LATH	20	1		258	15	13	2	pine			Schulz 1997
P 2549	1212,04	1994,06	50.11	SH	LATH	20	1		126	13	12	2	pine			Schulz 1997
P 2550	1212,15	1993,56	50.10	SH	LATH	20	1		385	30	11	1	oblique ends, pine			Schulz 1997
P 2551	1212,32	1993,51	50.10	SH	PILE	10	1		662	55	45	4	tapering point, grooves/insect marks, in trench section, hardwood			Schulz 1997
P 2552	1212,67	1993,80	50.05	SH	LATH	20	1		388	15	14	1	rounded end, pine			Schulz 1997
P 2553	1212,65	1993,25	50.13	SH	NATURAL PIECE OF WOOD	2	1		233	16	11	3	branch			Schulz 1997
P 2554	1212,76	1993,14	50.11	SH	PILE	10	1		224	73	70	2	in trench section, cut off, possibly binding grooves, pine			Schulz 1997
P 2555	1211,79	1993,92	50.05	SH	LATH	20	1		705	26	15	1	pine			Schulz 1997
P 2556	1212,02	1994,05	50.05	SH	LATH	20	1		812	28	17	1	pine			Schulz 1997
P 2557	1212,39	1994,22	50.05	SH	LATH	20	1		300	14	10	2	pine			Schulz 1997
P 2558	1212,37	1994,11	50.03	SH	NATURAL PIECE OF WOOD	1	1		263	28	25	2	branch, hardwood			Schulz 1997
P 2559	1212,37	1994,12	50.01	SH	PILE	10	1		303	80	52	2	end cut straight, halved, underneath P 2543, pine			Schulz 1997
P 2560	1211,70	1993,44	50.14	H/SH	LATH	20	1		56	15	5	3	pine			Schulz 1997
P 2561	1211,78	1993,45	50.14	SH	NATURAL PIECE OF WOOD	2	1		70	6	5	3	branch			Schulz 1997
P 2562	1211,52	1993,50	50.10	SH	LATH	20	1		90	12	6	4	pine			Schulz 1997
P 2563	1211,53	1993,18	50.16	SH	NATURAL PIECE OF WOOD	10	1		98	22	7	1	binding depression, pine			Schulz 1997
P 2564	1211,98	1993,19	50.13	SH	LATH	20	1		482	20	10	1	pine			Schulz 1997
P 2565	1210,97	1992,72	50.10	SH	LATH	20	1		983	21	10	3	pine			Schulz 1997
P 2566	1211,88	1992,85	50.11	SH	WORKED WOOD	20	1		221	30	11	2	possibly pointed object, hardwood			Schulz 1997
P 2567	1211,30	1993,34	50.10	SH	NATURAL PIECE OF WOOD		1		69	40	5	3	tree bark			Schulz 1997
P 2568	1211,08	1993,67	50.09	SH	NATURAL PIECE OF WOOD	2	1		70	20	5	3	hardwood			Schulz 1997
P 2569	1210,71	1993,42	50.13	SH	NATURAL PIECE OF WOOD	1	1		83	11	10	3	branch			Schulz 1997
P 2570	1210,66	1993,41	50.13	SH	NATURAL PIECE OF WOOD	2	1		145	9	9	1	branch			Schulz 1997
P 2571	1209,95	1993,33	50.06	SH	LATH	20	1		220	20	14	1	one end oblique, the other end rounded, pine		152	Schulz 1997
P 2572	1209,60	1992,86	50.06	SH	LATH	20	1		1098	19	10	1	one end oblique, pine			Schulz 1997
P 2573	1210,10	1993,09	50.09	SH	LATH	20	1		79	14	8	3	pine			Schulz 1997
P 2574	1210,18	1995,07	50.08	SH	LATH	20	1		226	21	10	1	one end rounded, pine			Schulz 1997
P 2575	1210,25	1993,07	50.08	SH	LATH	20	1		245	24	11	1	pine			Schulz 1997
P 2576	1210,50	1993,17	50.11	SH	LATH	20	1		203	14	11	3	pine			Schulz 1997
P 2577	1210,40	1992,77	50.01	SH	LATH	20	1		454	20	8	3	one end oblique, pine			Schulz 1997
P 2578	1210,78	1993,01	50.10	SH	LATH	20	1		255	17	16	2	pine			Schulz 1997
P 2579	1210,98	1992,94	50.10	SH	LATH	20	1		236	14	9	3	pine			Schulz 1997
P 2580	1209,78	1992,57	50.06	SH	LATH	20	1		305	14	7	3	pine			Schulz 1997
P 2581	1209,20	1991,75	50.05	SH	NATURAL PIECE OF WOOD	2	1		490	20	9	4	branch, hardwood			Schulz 1997
P 2582	1211,01	1991,90	50.11	SH	LATH	20	1		89	20	10	3	pine			Schulz 1997
P 2583	1211,77	1991,10	50.09	SH	LATH	20	1		100	24	8	1	pine (fragment recovered)			Schulz 1997
P 2584	1212,71	1991,21	50.17	SH	LATH	20	1		322	32	13	2	pine			Schulz 1997
P 2585	1211,49	1994,04	50.13	SH	NATURAL PIECE OF WOOD	10	3		215	44	38	1	branch, pine			Schulz 1997
P 2586	1212,65	1990,77	50.15	SH	LATH	20	1		116	21	8	3	pine			Schulz 1997
P 2587	1212,35	1990,38	50.15	SH	LATH	20	1		973	20	10	1	two fragments, pine			Schulz 1997
P 2588	1212,20	1990,33	50.11	SH	LATH	20	1		116	10	8	3	pine			Schulz 1997
P 2589	1212,52	1990,47	50.05	SH	LATH	20	2		200	16	9	1	pine			Schulz 1997
P 2590	1212,66	1990,72	50.15	SH	LATH	20	1		454	18	10	2	pine			Schulz 1997
P 2591	1212,40	1990,52	50.11	SH	LATH	20	1		588	21	15	1	one end thinned, pine			Schulz 1997
P 2592	1211,40	1990,08	50.11	SH	LATH	20	1		341	18	11	2	pine			Schulz 1997
P 2593	1211,56	1990,21	50.11	SH	WORKED WOOD	20	1		450	40	17	4	pine			Schulz 1997
P 2594	1212,21	1989,94	50.13	SH	WORKED WOOD	10	1		97	115	78	3	possibly pile end, hardwood		153	Schulz 1997
P 2595	1211,77	1989,83	50.19	SH	NATURAL PIECE OF WOOD	2	1		165	30	18	4	branch			Schulz 1997
P 2596	1211,77	1989,81	50.10	SH	LATH	20	2		411	15	12	2	pine			Schulz 1997
P 2597	1211,71	1989,85	50.15	SH	LATH	20	1		560	21	15	2	pine			Schulz 1997
P 2598	1212,10	1989,71	50.10	SH	LATH	20	1		130	19	10	2	triangular chisel-shaped end, pine			Schulz 1997
P 2599	1212,40	1989,94	50.11	SH	LATH	20	1		503	18	15	2	pine			Schulz 1997
P 2600	1212,20	1990,02	50.12	SH	LATH	20	1		144	33	5	3	one end oblique, pine			Schulz 1997
P 2601	1211,96	1989,18	50.12	SH	LATH	20	1		360	33	11	3	pine			Schulz 1997
P 2602	1211,39	1989,29	50.13	SH	NATURAL PIECE OF WOOD	2	1		144	33	23	3	pine			Schulz 1997
P 2603	1211,17	1989,26	50.13	SH	LATH	20	1		325	22	15	2	pine			Schulz 1997
P 2604	1211,44	1989,30	50.10	SH	NATURAL PIECE OF WOOD	10	1		165	15	12	2	branch			Schulz 1997
P 2605	1211,16	1989,67	50.09	SH	WORKED WOOD	20	1		135	23	10	2	pointed, pine			Schulz 1997
P 2606	1211,14	1989,64	50.09	SH	LATH	20	1		192	8	4	3	pine			Schulz 1997
P 2607	1210,95	1989,35	50.18	SH	LATH	20	1		152	16	5	3	pine			Schulz 1997
P 2608	1209,60	1989,37	50.08	SH	LATH	20	1		190	20	15	1	oblique end, pine			Schulz 1997
P 2609	1209,20	1990,23	50.06	SH	LATH	20	1		87	12	9	3	pine			Schulz 1997
P 2610	1210,01	1989,23	50.10	SH	LATH	20	1		275	20	14	3	pine			Schulz 1997
P 2611	1209,08	1990,69	50.09	SH	LATH	20	1		263	11	9	2	pine			Schulz 1997
P 2612	1206,01	1989,07	49.95	SH	WEDGE	20	1		343	55	50	2	worked, one end oblique		154	Schulz 1997
P 2613	1205,43	1989,07	49.95	SH	STAKE	10	1		624	33	31	1	both ends cut off, pine			Schulz 1997
P 2614	1066,95	2034,10	49.87	SH	LATH SCREEN SECTION	20	2		851	107	33	3	one lath attached with fragmentary birch bark bindings, lath and birch bark fragments		155	Schulz 1997
P 2615	1194,10	2000,02	49.97	SH	STAKE	10	1		1395	39	26	2	complete, tapering point, rounded end, slightly angular cross-section		156	Schulz 1997
P 2616	1194,88	2000,92	49.98	SH	STAKE	10	1		1915	35	34	1	tapering point, deformed in water, pine, possibly natural piece of wood		157	Schulz 1997
P 2617	1196,72	2000,44	49.99	SH	NATURAL PIECE OF WOOD	1	1		315	23	23	1	hardwood			Schulz 1997
P 2618	1196,55	1999,98	50.01	SH	LATH	20	1		762	15	12	2	pine			Schulz 1997
P 2619	1195,52	1999,31	49.98	SH	PILE	10	1		2046	112	106	1	complete, pencil-shaped point (12 facets), blunt end cut straight, pine		158	Schulz 1997
P 2620	1196,53	1999,94	50.01	SH	NATURAL PIECE OF WOOD	2	1		242	37	17	3	hardwood			Schulz 1997
P 2621	1196,58	1999,95	50.01	SH	LATH	20	1		481	20	13	2	oblique end, pine			Schulz 1997
P 2622	1195,89	1999,44	49.94	SH	NATURAL PIECE OF WOOD	10	1		284	42	33	3	rounded end, hardwood			Schulz 1997
P 2623	1196,06	1999,51	50.01	SH	LATH	20	1		132	18	6	2	pine			Schulz 1997
P 2624	1196,23	1999,38	49.95	SH	LATH	20	2		543	19	10	2	pine			Schulz 1997
P 2625	1196,86	1999,92	50.02	SH	LATH	20	1		379	15	12	1	carved edge, pine			Schulz 1997
P 2626	1196,96	1999,93	50.02	SH	NATURAL PIECE OF WOOD	2	1		354	11	11	3	branch, hardwood			Schulz 1997
P 2627	1196,26	1999,50	49.97	SH	WOODEN ARTEFACT	20	2		304	10	7	1	split lath with a wooden stick attached with birch bark binding, exhibit at Kierikki		159	Schulz 1997
P 2628	1196,32	1999,55	49.97	SH	LATH	20	2		329	18	9	3	pine			Schulz 1997
P 2629	1196,26	1999,60	50.03	SH	LATH	20	1		861	16	12	2	pine			Schulz 1997
P 2630	1196,03	1999,51	49.97	SH	LATH	20	1		475	15	10	2	pine			Schulz 1997
P 2631	1196,24	1999,57	50.01	SH	NATURAL PIECE OF WOOD		1		154	47	5	2	root, alder?			Schulz 1997
P 2632	1197,20	1999,89	50.02	SH	LATH	20	1		748	15	9	1	pine			Schulz 1997
P 2633	1196,50	1999,65	50.04	SH	LATH	20	1		494	19	16	1	pine			Schulz 1997
P 2634	1196,47	1999,69	50.01	SH	LATH	20	1		232	14	12	3	pine			Schulz 1997
P 2635	1196,50	1999,65	49.97	SH	NATURAL PIECE OF WOOD	2	1		197	38	24	3	pine			Schulz 1997
P 2636	1196,75	1999,73	49.97	SH	NATURAL PIECE OF WOOD	10	1		252	25	21	3	hardwood 〃			Schulz 1997
P 2637	1196,65	1999,70	49.97	SH	LATH	20	1		238	17	11	2	pine 〃			Schulz 1997
P 2638	1196,69	1999,72	49.97	SH	NATURAL PIECE OF WOOD	2	1		381	20	11	3	branch			Schulz 1997
P 2639	1198,44	2000,11	50.01	SH	PILE	10	1		937	92	62	2	end cut off, notch in the middle, hardwood			Schulz 1997
P 2640	1198,75	2000,05	49.99	SH	PILE	10	1		1535	73	72	1	complete, pencil-shaped point (6-7 facets), peg-shaped end, pine, exhibit at Kierikki		160	Schulz 1997
P 2641	1198,03	1999,80	50.01	SH	LATH	20	1		366	16	10	2	pine			Schulz 1997
P 2642	1197,66	1999,90	50.02	SH	STAKE	20	1		1036	28	25	1	worm/insect marks, pine			Schulz 1997
P 2643	1198,46	200,01	50.01	SH	LATH	20	1		429	15	12	3	pine			Schulz 1997
P 2644	1198,03	1999,93	49.98	SH	LATH	20	1		488	25	9	1	oblique end, pine			Schulz 1997
P 2645	1198,59	1999,10	49.98	SH	LATH	20	1		574	22	20	2	pine			Schulz 1997
P 2646	1198,14	1999,74	50.01	SH	NATURAL PIECE OF WOOD	2	2		515	26	21	3	hardwood			Schulz 1997
P 2647	1197,82	1999,74	49.98	SH	LATH	20	1		634	22	15	2	pine		161	Schulz 1997
P 2648	1198,01	2000,44	50.02	SH	WORKED WOOD	20	1		187	24	17	3	pine			Schulz 1997
P 2649	1196,96	2001,05	49.99	SH	LATH	20	1		850	25	12	2	oblique end, pine			Schulz 1997
P 2650	1196,06	2000,71	50.04	SH	LATH	20	1		333	15	12	3	pine			Schulz 1997
P 2651	1196,22	2000,84	49.99	SH	NATURAL PIECE OF WOOD	10	1		502	44	37	1	pine			Schulz 1997
P 2652	1196,17	200,91	49.95	SH	NATURAL PIECE OF WOOD	2	1		484	63	17	2	plank-shaped rounded end, deformed in water, pine		162	Schulz 1997
P 2653	1196,19	2000,89	49.95	SH	LATH	20	1		550	19	13	3	pine			Schulz 1997
P 2654	1196,15	2000,82	49.94	SH	LATH	20	1		457	20	17	2	carved end, pine			Schulz 1997
P 2655	1196,18	2000,88	49.97	SH	LATH	20	1		705	17	8	3	pine			Schulz 1997
P 2656	1197,27	2001,27	49.99	SH	NATURAL PIECE OF WOOD	2	1		140	42	22	3	deformed in water, hardwood		163	Schulz 1997

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P 2657	1200,60	1998,51	49.99	SH	NATURAL PIECE OF WOOD	10	1		1562	197	157	3	cut off from trench section, hardwood			Schulz 1997
P 2658	1201,01	1998,60	49.92	SH	NATURAL PIECE OF WOOD	10	1		194	42	35	6	charred end, underneath P 2657		164	Schulz 1997
P 2659	1200,02	1998,01	49.91	SH	PILE	10	1		1394	72	65	3	fragment, tapering point, hardwood		165	Schulz 1997
P 2660	1201,01	1998,45	49.92	SH	NATURAL PIECE OF WOOD	10	1		676	104	87	3	pine			Schulz 1997
P 000	1148,91	2161,70	51.10	4. puukrs.	LATH SCREEN SECTION	20	0		1950	455	33	2/4	nine laths with birch bark and willow? bindings, three attached and one loose, slightly arched whilst recovered	31019	1	Schulz 1998
P 023	1150.35	2163,90	51.22	3. puukrs.	BIRCH BARK BINDING	20	0	122	740	40	30	2/3	fragmentary laths and birch bark bindings, partly well preserved but fragmentary		4	Schulz 1998
P 024	1150,52	2163,75	51.22	3. puukrs.	LATH SCREEN SECTION	20	0	123	432	30	26	2/4	one lath with relatively well-preserved birch bark binding, + some fragmentary lath and birch bark pieces		2	Schulz 1998
P 029	1149,30	2161,80	51.03	4. puukrs.	LATH SCREEN SECTION	20	0		220	24	24	2/5	birch bark binding in sediment underneath lath screen section, twigs attached to the bindings, fragmentary laths and twigs, partly decomposed; length >= 107mm. width >15mm.		3	Schulz 1998
(P 011):	1150.405	2161,90	51.22	3. puukrs.	LATH SCREEN SECTION	20	0		740	93	34	3/4	cluster of fragmentary laths and birch bark, loose twigs and wooden sticks, partly decomposed and hard to recover		5	Schulz 1998
P 011 A	1150,60	2161,50	51.21	3. puukrs	LATH	20	0	143	>=740	20	13	3	both ends fragmented			Schulz 1998
P 011 B	1150,50	2161,57	51.21	3. puukrs	WORKED WOOD	10	0	131	>232	15	n.15	4	possibly pointed, end cut, bark attached			Schulz 1998
P 011 C	1150,50	2161,75	51.21	3. puukrs	NATURAL PIECE OF WOOD	10	0	132	n. 136	93	14-18	3/4	piece of birch bark			Schulz 1998
P 011 D	1150.407	2161,60	51.21	3. puukrs	NATURAL PIECE OF WOOD	x	0	106	>108	4	4	2	willow stick, both ends cut off			Schulz 1998
P 010	1150.40	2161,90	51.21	3. puukrs.	LATH	20	0	129	>312	17	11	3/4	part of wood cluster			Schulz 1998
P 012	1154,25	2161,30	51.19	3. puukrs.	NATURAL PIECE OF WOOD	x	0	129	n. 175	n. 14	> 2	x	thin, smooth piece of birch bark			Schulz 1998
P 037	1151.05	2161,26	51.15	4. puukrs.	NATURAL PIECE OF WOOD	x	0	132	23	17	6	x	charred piece of wood			Schulz 1998
P 030	1151.307	2161,93	51.13	4. puukrs.	NATURAL PIECE OF WOOD	x	0	110	36	28	14	,	charred end piece and two smaller fragments, stake with the same number at Kierikki			Schulz 1998
P 031	1151.15	2161,32	51.15	4. puukrs.	NATURAL PIECE OF WOOD	x	0	185	x	x	x	x	small fragments of bark			Schulz 1998
P 032	1151,40	2161,71	51.16	4. puukrs.	LATH	20	0	123	130			4	-			Schulz 1998
P 033	1151.19	2161,74	51.17	4. puukrs.	NATURAL PIECE OF WOOD	x	0	229	>150			3	hardwood fragment			Schulz 1998
P 034	1151.07	2161,70	51.14	4. puukrs.	NATURAL PIECE OF WOOD	x	0	141	55	24	8	x	charred			Schulz 1998
P 035	1151.34	2161,75	51.19	4. puukrs.	LATH	20	0	111	290			3	-			Schulz 1998
P 036	1151.07	2161,16	51.17	4. puukrs.	NATURAL PIECE OF WOOD	x	0	133	171			2	branch, hardwood			Schulz 1998
P 038	1151.33	2161,47	51.15	4. puukrs.	LATH	20	0	122	250			2	-			Schulz 1998
P 039	1150.70	2161,65	51.15	4. puukrs.	LATH	20	0	217	364			3	-			Schulz 1998
P 040	1151.06	2161,13	51.16	4. puukrs.	LATH	20	0	125	290			2	-			Schulz 1998
P 041	1151.23	2161,16	51.14	4. puukrs.	LATH	20	0	100	350			2	-			Schulz 1998
P 042	1152,75	2161,00	51.12	4. puukrs.	PILE	10	0	111	1502	60	60	1	tapering point			Schulz 1998
P 043	1152,35	2161,23	51.16	4. puukrs.	PILE	10	0	85	>570	75	75	3	rounded end			Schulz 1998
P 044	1152,50	2161,69	51.17	4. puukrs.	LATH	20	0	128	196			2/3	-			Schulz 1998
P 045	1152,65	2161,64	51.17	4. puukrs.	PILE	10	0	118	>370	40	40	2/3	-			Schulz 1998
P 046	1152,73	2161,45	51.15	4. puukrs.	NATURAL PIECE OF WOOD	x	0	112	>610	80	80	2	possibly pile			Schulz 1998
P 047	1152,71	2161,13	51.10	4. puukrs.	LATH	20	0	120	680			3	-			Schulz 1998
P 048	1152,33	2161,36	51.15	4. puukrs.	PILE	10	0	90	360	80	80	2/3	-			Schulz 1998
P 049	1152,55	2160,95	51.07	4. puukrs.	LATH	20	0	117	640			4	-			Schulz 1998
P 050	1152,93	2161,43	51.13	4. puukrs.	LATH	20	0	155	350			2	-			Schulz 1998
P 051	1552,82	2161,68	51.11	4. puukrs.	NATURAL PIECE OF WOOD	x	0	228	310			2	branch			Schulz 1998
P 052	1552,81	2161,63	51.11	4. puukrs.	LATH	20	0	165	615			4	-			Schulz 1998
P 053	1153,15	2161,76	51.10	4. puukrs.	LATH	20	0	83	350			3	-			Schulz 1998
P 054	1152,33	2161,67	51.17	4. puukrs.	LATH	20	0	112	283			4	-			Schulz 1998
P 055	1152,90	2161,66	51.08	4. puukrs.	LATH	20	0	76	465			2/3	-			Schulz 1998
P 056	1152,77	2161,78	51.16	4. puukrs.	WORKED WOOD	10	0	115	255	22	12	3/4	stake fragment, tapering point, initially angular cross-section, end cut off		6	Schulz 1998
P 057b	1152,47	2161,98	51.15	4. puukrs.	WORKED WOOD	10	0	119	>422			4	stake or pile			Schulz 1998
P 057	1148,90	2162,15	51.06	4. puukrs.	NATURAL PIECE OF WOOD	10	0		n. 10	16	5	3	both ends rounded, lath fragments?			Schulz 1998
P 058	1149,20	2164,45	51.04	4. puukrs.	LATH	20	0	65	>120	11	11	3	in four pieces, fragmentary lathch underneath lath screen sectiuon, part of P 028			Schulz 1998
P(25)	1170,50	2159,05	50.89	(kk)	NATURAL PIECE OF WOOD	x	0		x	x	x	x	birch bark fragments			Schulz 1998
P x	x	x	x	4. puukrs.	LATH SCREEN SECTION	x	0	65	x	x	x	x	lath fragments, birch bark rolls and fargments, willow twig (l. 35, w. 16, t.10mm).Drawn into scale 1:2 in situ.			Schulz 1998
P 065	1150.16	2163,61	51.16	4. puukrs.	NATURAL PIECE OF WOOD	x	0	90	192			x	bark, -			Schulz 1998
P 066	1150.08	2163,46	51.15	4. puukrs.	LATH	20	0	120	480			2/3	-			Schulz 1998
P 007	1150.90	2160,80	51.18	3. puukrs.	NATURAL PIECE OF WOOD	0	0		85	68	9	2	hardwood surface			Schulz 1998
P 006	1150.705	2162,75	51.27	2. puukrs.	NATURAL PIECE OF WOOD	x	0	270	x	x	x	2	fragments of birch bark rolls with pieces of wood			Schulz 1998
P 059	1150,53	2163,30	51.22	3. puukrs.	NATURAL PIECE OF WOOD	x	0	115	>735			2/3	hardwood			Schulz 1998
P 060	1150,55	2163,55	51.25	3. puukrs.	NATURAL PIECE OF WOOD	x	0	114	>375			1/2	hardwood			Schulz 1998
P 061	1150.88	2163,78	51.24	3. puukrs.	NATURAL PIECE OF WOOD	20	0	108	70	47	16	2	separate birch bark binding			Schulz 1998
P 062	1150.21	2163,84	51.23	3. puukrs.	LATH	20	0	250	>460			1/2	-			Schulz 1998
P 063	1150.85	2163,61	51.26	3. puukrs.	NATURAL PIECE OF WOOD	0	0	160	138	97	9	2	harwood bark (aspen)			Schulz 1998
P 064	1150.84	2162,02	51.16	3. puukrs.	WORKED WOOD	10	0	131	1460	43	43	2/3	stake?			Schulz 1998
P 005	1148,70	2161,15	51.17	3. puukrs.	NATURAL PIECE OF WOOD	20	0		x	x	x	2	two rolls of birch bark			Schulz 1998
P 025	x	x	x	4. puukrs.	WORKED WOOD	x	0		>357	19	17	4	willow stick?, one end cut off, the other cut oblique, excavation damages, drawn into scale 1:2 in situ			Schulz 1998
P 026	x	x	x	4. puukrs.	NATURAL PIECE OF WOOD	x	0		141	9	9	4				Schulz 1998
P 027	x	x	x	4. puukrs.	WORKED WOOD	x	0		>147	18	22	3/4	possibly worked, both ends cut/rounded, halved			Schulz 1998
P 028	x	x	x	4. puukrs.	LATH	20	0		>535	15	11	2	point cut oblique, end broken, diagonally underneath lath screen section			Schulz 1998
P (1a)	1169,01	2121,20	51.22	(kk)	LATH	20	0	71	506	31	16	4	fragments		7	Schulz 1998
P (1b)	1169,10	2121,20	51.22		LATH	20	0		>76	18	11	3	hard surface, possibly charred			Schulz 1998
P (21)	1180,65	2159,10	50.68	(kk)	LATH	20	0	132	297	26	20	2/3	tapering point, deformed in water, end cut straight, rhomboid cross-section		8	Schulz 1998
P x	1155,72	2161,92	51.20	3. puukrs.	LATH	20	0		>650	29	13	2	tapering point, end cut off and rounded			Schulz 1998
P 008	1150.40	2161,55	51.14	3. puukrs.	LATH	20	0	109	>597	17	14	2/3	both ends cut off			Schulz 1998
P 021	1150.92	2161,78	51.21	3. puukrs.	WORKED WOOD	10	0	222	237	29	29	2/3	chisel-shaped point, end cut straight and rounded, excavator damages		9	Schulz 1998
P009	1180,40	2161,40	51.14	3. puukrs.	NATURAL PIECE OF WOOD	x	0	129	294	31	30	3/4	both ends broken		10	Schulz 1998
P (9)	1180,45	2159,25	50.69	(kk)	NATURAL PIECE OF WOOD	x	0	128	>132	16	15	3/4				Schulz 1998
P 020	1150.95	2161,80	51.16	3. puukrs.	WORKED WOOD	10	0	119	119	50	48	3	fragment, chisel-shaped point, broken end, elaborate tool marks		11	Schulz 1998
P 018	1150,82	2160,87	51.15	3. puukrs.	WORKED WOOD	20	0	111	285	32	16	3	five fragments, lath-shaped stick, one end broken, the other rounded		12	Schulz 1998
P 016	1152,38	2161,15	51.18	3. puukrs.	LATH	20	0	131	>282	16	14	2	possibly charred, both ends cut off, one end made narrower and possibly pointed			Schulz 1998
P (12)	1180,48	2159,25	50.70	(kk)	LATH	20	0	128	>214	22	12	2/3	fragment, oblique-shaped point, end broken			Schulz 1998
P (13)	1180,46	2159,30	50.70	(kk)	LATH	20	0	128	>271	18	13	2/3	in two pieces			Schulz 1998
P (14)	1180,40	2159,30	50.70	(kk)	NATURAL PIECE OF WOOD	x	0	128	>249	29	28	2/3	branch, fragment			Schulz 1998
P (5)	1150.25	2139,30	50.97	(kk)	NATURAL PIECE OF WOOD	x	0	145	>345	46(61)	18	2/3	halved, knotholes			Schulz 1998
P (8)	1180,70	2159,20	50.64	(kk)	LATH	20	0	131	159	21	13	3	fragmented, possibly binding depression, broken end		13	Schulz 1998
P (15)	1180,75	2159,50	50.63	(kk)	LATH	20	0	121	>152	12	10	3	both ends broken			Schulz 1998
P 6b	1150.30	2160,75	51.23	2. puukrs.	LATH	20	0	112	>379	19	19	2	one end rounded, the other cut off, binding depressions			Schulz 1998
P x	1148,81	2162,02	51.22	2. puukrs.	NATURAL PIECE OF WOOD	0	0		n. 140	55	36	4/5	flat piece of wood			Schulz 1998
P 030b	x	x	x	4. puukrs.	STAKE	10	0		>653	36	36	3/4	point fragment, pencil-shaped point (6 facets), length 25 cm, end missing			Schulz 1998
P 004	1150.25	2161,55	51.21	3. puukrs.	WORKED WOOD	10	0	144	>734	38	>34	3/4	fragmentary piece of wood			Schulz 1998
P (2/1 ja 2/2)	1150.30	2140,40	50.98	(kk)	WORKED WOOD	10	0	148	1259	42	41	1/2	in two pieces, broken point, end cut straight		14	Schulz 1998
P 002	1149.75	2162,30	51.16	3. puukrs.	NATURAL PIECE OF WOOD	x	0	121	>578	-	-	3/4	point cut off, end cut straight and possibly halved			Schulz 1998
P (19)	1180,70	2159,00	50.70	(kk)	PILE	10	0	109	695	77	74	2/3	fragment, pencil-shaped point (7 facets), length c. 55 cm, end cut off		15	Schulz 1998
P 003	1149.90	2162,00	51.16	3. puukrs.	NATURAL PIECE OF WOOD	10?	0	122	1063	62	53	2-4	pile? oblique end, badly preserved		16	Schulz 1998
P 001	1149,40	2162,20	51.16	3. puukrs.	NATURAL PIECE OF WOOD	x	0	120	1500	62	48	5	tapering ends, deformed in water		17	Schulz 1998
P (20)	1180,95	2159,00	50.72	(kk)	LATH	20	0	127	910	23	14	1	both ends cut off			Schulz 1998
P (7)	1180,35	2159,35	50.88	(kk)	WORKED WOOD	x	0	158	>297	42	>37	2/3	both ends cut off			Schulz 1998
P (10)	1180,55	2159,60	50.68	(kk)	WEDGE	10?	0	133	480	40	36	1	complete, wedge-shaped point, end cut straight		18	Schulz 1998
P (11)	1180,50	2159,30	50.66	(kk)	NATURAL PIECE OF WOOD	x	0	128	>470	18	18	1/2	possibly pointed			Schulz 1998
P(23)	1179,80	2159,40	50.70	(kk)	PILE	10	0	121	>1051	n. 60	n. 60	2	in two pieces, pencil-shaped point (6 facets), end cut straight			Schulz 1998
P(24)	1180,00	2150,00	50.90	(kk)	LATH	x	0		x	x	x	x	test pit, c. 40 branch pieces, hardwood			Schulz 1998
P (4)	1150,00	2140,60	51.00	(kk)	NATURAL PIECE OF WOOD	0	0	54	>315	>36	>16	3				Schulz 1998
P (17)	1180,10	2158,95	50.69	(kk)	PILE	10	0	162	>276	73	53	3/4	peg-shaped point, broken end, lath with the same number at Kierikki			Schulz 1998
P (6a)	1180,15	2159,45	50.86	(kk)	NATURAL PIECE OF WOOD	0	0	124	-	-	-	3	tree roots, in two pieces (numbers 1998 P 161 in the sample bag)			Schulz 1998

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
P (3)	1169,10	2121,20	51.22	(kk)	NATURAL PIECE OF WOOD	x	0	83	>1185	>82	>82	5	in two pieces, deformed in water, possibly pile, poor preservation			Schulz 1998
P (16)	1180,20	2159,00	50.79	(kk)	NATURAL PIECE OF WOOD	x	0	164	>395	>118	>95	4	hardwood			Schulz 1998
P (18)	1180,60	2159,00	50.68	(kk)	NATURAL PIECE OF WOOD	x	0	137	>759	60	55	1(2)	both ends cut off, willow			Schulz 1998
Px	1148,40	2161,15	51.38	1. puukrs.	NATURAL PIECE OF WOOD	x	0		>930	>67	>57	-	fragment			Schulz 1998
x	x	x	x	x	NATURAL PIECE OF WOOD	x	0		x	x	x	x	separate roll of birch bark			Schulz 1998
x	x	x	x	x	NATURAL PIECE OF WOOD	x	0		x	x	x	x	small pine bark fragments			Schulz 1998
P 013	1153,15	2161,58	51.21	2. puukrs.	PILE	10	0	121	x	70	>30	5	point fragments -			Schulz 1998
P 014	1152,50	2161,60	51.21	2. puukrs.	NATURAL PIECE OF WOOD	x	0	103	x	55	55	4	-			Schulz 1998
P 015	1152,35	2161,10	51.28	2.puukrs.	PILE	10	0	121	x	80	80	5	angular point fragments -			Schulz 1998
P 017	1151,50	2161,15	51.23	3. puukrs.	LATH	20	0	87	>900	19	10	-	-			Schulz 1998
P 019	1151.15	2161,57	51.23	3. puukrs.	NATURAL PIECE OF WOOD	x	0	113	x	50	50	3	-			Schulz 1998
P 022	1152,15	2161,30	51.18	3. puukrs.	NATURAL PIECE OF WOOD	x	0	191	>687	71	68	2/3	fragment, pine -			Schulz 1998
P(22)	1179,90	2159,10	50.68	(kk)	NATURAL PIECE OF WOOD		0	110	879	79	65	4	fragment, possibly pile			Schulz 1998
P 33	1065,35	2033,99	49.75	x	LATH	20			702	21	20	1	fragment	31836	7	Schulz 1999
P 15	1065,80	2035,40	49.70	x	LATH	20			728	17	9	1	oblique point, end cut off		4	Schulz 1999
P 7	1066,35	2035,50	49.94	x	NATURAL PIECE OF WOOD	2			120	44	20	3	wood chip		2	Schulz 1999
P 22	1065,40	2034,65	49.75	x	LATH	20			250	12	9	2	one end rounded, binding depressions?		6	Schulz 1999
P 1	1063,03	2033,45	49.90	x	NATURAL PIECE OF WOOD	10			486	31	30	2	natural piece of wood		1	Schulz 1999
P 24	x	x	x	x	NATURAL PIECE OF WOOD	2			>87	21	17	2	pointed stick, willow			Schulz 1999
P 34	1066,70	2034,80	49.75	x	NATURAL PIECE OF WOOD	1			189	27	22	2	halved point, end cut off straight, hardwood		8	Schulz 1999
P 9	1064,70	2034,40	x	x	NATURAL PIECE OF WOOD	2			>535	54	38	2	both ends broken			Schulz 1999
P 14	1065,70	2035,40	49.71	x	LATH	20			1185	20	14	2	point oblique, end cut straight, possibly binding notches and grooves		3	Schulz 1999
P 37	x	x	x	x	LATH	20			>169	18	11	1	both ends cut off, notches			Schulz 1999
P 19	1067,80	2037,60	49.73	x	LATH	20			385	23	12	2	oblique point, end rounded		5	Schulz 1999
P 56	1066,45	2034,75	49.66	x	NATURAL PIECE OF WOOD	1			71	76	8	2	tree bark, perforation? Hardwood		14	Schulz 1999
P 95	1067,55	2035,60	49.76	x	LATH	20			400	20	16	2	both ends cut off, binding depressions, recovered with artefact P 100, small piece of birch bark along		25	Schulz 1999
P 100	1067,55	2036,00	49.75	x	WOODEN ARTEFACT	20			294	45	15	2	flat shuttle-shaped object, possibly lath attached with binding, almost completely degraded			Schulz 1999
P 48	1067,42	2034,42	49.71	x	NATURAL PIECE OF WOOD	2			228	52	28	4	possibly pile fragments			Schulz 1999
P 45	1067,00	2034,20	49.71	x	LATH	20			470	18	13	2	oblique point, broken end, notches and grooves		11	Schulz 1999
P 53	1067,60	2035,05	49.71	x	LATH	20		x	>199	33	9	3	both ends broken			Schulz 1999
P 44	1067,00	2034,22	49.71	x	LATH	20			240	15	10	2	oblique end, point missing, notches and grooves		10	Schulz 1999
P 46	1067,00	2034,38	49.76	x	LATH	20			176	20	11	2	oblique ends, binding depressions		12	Schulz 1999
P 42	1066,90	2034,28	49.71	x	LATH	20		>145		20	10	3	both ends broken			Schulz 1999
P 49	1067,40	2034,05	49.71	x	LATH	20			154	21	17	2	end cut oblique, triangular cross-section		13	Schulz 1999
P 63	1069,45	2033,33	49.74	x	NATURAL PIECE OF WOOD	1			131	55	6		piece of bark, possible perforations and depressions		16	Schulz 1999
P 74	1067,20	2033,80	49.69	x	WORKED WOOD	10			175	50	19	2	wood working debris		19	Schulz 1999
P 41	1066,37	2034,68	49.65	x	PILE	10			744	81	78	2/3	deformed, possibly natural piece of wood, birch, bark attached		9	Schulz 1999
P 76	1064,40	2033,55	49.64	x	PILE	10			703	95	75	3	complete, short pile, tapering point, peg-shaped end, deformed in water		21	Schulz 1999
P 82	1067,40	2035,45	49.74	x	LATH	20			844	16	12	1	both ends broken		22	Schulz 1999
P 83	1067,54	2035,45	49.76	x	LATH	20			360	15	13	2	both ends broken, excavation damages		23	Schulz 1999
P 149	1065,77	2034,90	49.66	x	LATH	20			780	22	15	3	both ends broken, curved		34	Schulz 1999
P 159	1066,95	2036,40	49.63	x	LATH	20			798	15	13	2	end cut straight		36	Schulz 1999
P 131	1070,00	2034,90	49.65	x	PILE	10			1394	74	69	4	complete, tapering point, peg-shaped end, in several pieces, poor preservation		30	Schulz 1999
P 108	1067,30	2035,25	49.69	x	LATH	20			>201	18	7		both ends broken			Schulz 1999
P 139	1065,80	2036,30	49.70	x	LATH	20			187	12	8		both ends broken		32	Schulz 1999
P 137	1064,68	2036,42	49.80	x	LATH	20			>224	11	10		both ends broken			Schulz 1999
P 101	1067,65	2036,10	49.75	x	NATURAL PIECE OF WOOD	1			146	54	25	2	natural piece of wood		27	Schulz 1999
P 72	1068,90	2033,80	49.61	x	NATURAL PIECE OF WOOD	1			163	146	3		tree bark		18	Schulz 1999
P 117	1069,70	2036,08	49.82	x	WORKED WOOD	10			242	50	35	3	possibly stake fragment		29	Schulz 1999
P 68	1067,07	2034,72	49.70	x	WORKED WOOD	10			113	21	8		wood working debris, chip?		17	Schulz 1999
P 97	1067,13	2035,55	49.73	x	NATURAL PIECE OF WOOD	10			221	46	18	3	deformed wood working debris		26	Schulz 1999
P 190	1146,27	2155,18	51.34		PILE				1835	86	83		complete, tapering point, end cut straight, excavation damages		40	Schulz 1999
P230	1149,00	2157,33	51.25		PILE	10			863	82	81		end fragment, notched?		42	Schulz 1999
P252	1151,70	2158,40	51.27		LATH	20			379	33	12				46	Schulz 1999
P241	1150,60	2158,20	51.305		NATURAL PIECE OF WOOD				399	22	22		middle fragment of stick		44	Schulz 1999
P 462	1146,90	2154,55	51.20		WORKED WOOD	10			715	29	28		stick with tapering point, two cut marks in the middle		59	Schulz 1999
P 165	1065,90	2038,55	49.84		LATH	20			650	20	9		in six pieces		37	Schulz 1999
P 482	1148,38	2156,21	51.38		STAKE	10			622	35	34		point fragment, pencil-shaped point (6 facets), notched, binding depression, elaborate artefact		60	Schulz 1999
P 450	1151,97	2156,55	51.19		LATH	20			197	23	15		cross-section triangular		53	Schulz 1999
P 183	1068,55	2037,30	49.77		LATH	20			496	25	16		in pieces		39	Schulz 1999
P 243	1151,00	2156,65	51.26		LATH	20			159	23	12		one end wedge-shaped		45	Schulz 1999
P 401	1147,90	2155,95	51.30		LATH	20			95	22	11				51	Schulz 1999
P 460	1211,00	2152,00		kk 15	WORKED WOOD	10			311	64	52		possibly point fragmentof a pile		58	Schulz 1999
P 453	2170,00	1200,00	51.20		PILE	10			836	92	89		end fragment, cut straight and rounded, dendro sample FIO3901=13BC, WIGGLE MATCH, elaborate artefact		54	Schulz 1999
P 75	1067,18	2033,65	49.71		LATH	20			209	19	15		in pieces		20	Schulz 1999
P 232	1149.75	2158,20	51.31		WOODEN ARTEFACT	20			1950	141	85		timber fragment, halved, wedge-shaped end, dendro sample FIO3902=9BC		43	Schulz 1999
P 58	1067,20	2034,47	49.71		LATH	20			980	17	12		in four pieces, fragmentary birch bark binding in the middle, curved		15	Schulz 1999
P 86	1067,40	2033,05	49.72		NATURAL PIECE OF WOOD				88	40	9		tree bark		24	Schulz 1999
P 115	1066,60	2034,00	49.71		NATURAL PIECE OF WOOD								pine cones, in several pieces		28	Schulz 1999
P 133	1068,45	2037,43	49.75		LATH	20			1429	24	14		in two pieces		31	Schulz 1999
P 143	1064,36	2036,30	49.80		NATURAL PIECE OF WOOD								wood working debris		33	Schulz 1999
P 151	1065,40	2035,20	49.68		NATURAL PIECE OF WOOD				41	19	19		pine cone		35	Schulz 1999
P 177	1066,58	2038,07	49.81		LATH	20			415	19	11		in three pieces		38	Schulz 1999
P 197	1147,85	2155,50	51.32		LATH	20			113	18	11				41	Schulz 1999
P 264	1069,19	2039,65	49.80		WOODEN ARTEFACT	20			345	128	15		sledge runner fragment, plank-shaped object, worked all over, exhibit at Kierikki		47	Schulz 1999
P 358	1068,40	2044,80	49.80		NATURAL PIECE OF WOOD				175	47	35		possibly wood working debris		48	Schulz 1999
P 363	1069,67	2042,15	49.83		LATH	20			468	20	18		A in two pieces		49	Schulz 1999
	1069,30	2042,38	49.82		LATH	20			241	18	8		B		50	Schulz 1999
P 443	1150.30	2158,45	51.32		NATURAL PIECE OF WOOD				95	22	11		deformed in water		52	Schulz 1999
P 454	1180,60	2170,37	50.97		LATH SCREEN SECTION	20			1060	320	33		five lath fragments and three birch bark bindings, willow twig underneath, small fragments included		55	Schulz 1999
P 455	1180,97	2168,90	50.96		LATH SCREEN SECTION	20			1010	290	45		4-5 lath fragments and three birch bark bindings, willow twig underneath, presumably from the same structure as P 454		56	Schulz 1999
P 458	1211,00	2152,00		kk15	LATH	20							two fragments, l. 320 and 110 mm, in pieces		57	Schulz 1999
P 482	1148,38	2156,21	51.38		STAKE	10			622	35	34		point fragment, cross-section hexagonal			Schulz 1999
P 489	1149.32	2158,33	51.33		LATH	20			468	15	13		curved		61	Schulz 1999
P 490	1148,88	2156,72	51.33		LATH	20			588	17	12		in pieces		62	Schulz 1999
P 518	1154,68	2155,98	51.12		LATH	20			408	18	16		birch bark binding included		63	Schulz 1999
P 525	1149,25	2155,80	51.20		PILE	10			368	52	44		wedge-shaped point fragment, poor preservation		64	Schulz 1999
1	1154,18	2162,50	51.21	1	PILE	10	1	SW-NE	340		116		point fragment, partly charred	34860	2	Koivunen & Viljanmaa 2004
2	1153,48	2162,50	51.11	1	PILE	10	1	NW-SE	1910		72		sharp angular point, chisel-shaped tip		3	Koivunen & Viljanmaa 2004
3	1153,78	2162,16	51.13	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
4	1153,66	2161,88	51.08	1	LATH	20	1	NW-SE					fragment, in four pieces			Koivunen & Viljanmaa 2004
5	1153,42	2161,96	51.12	1	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
6	1153,30	2162,30	51.19	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
7	1153,30	2162,90	51.26	1	LATH	20	1	NW-SE					in trench section			Koivunen & Viljanmaa 2004
8	1153,16	2162,22	51.23	1	NATURAL PIECE OF WOOD		1	SE-NW					decayed			Koivunen & Viljanmaa 2004
9	1153,26	2162,43	51.13	1	NATURAL PIECE OF WOOD		1	NW-SE					in trench section			Koivunen & Viljanmaa 2004
10	1153,12	2162,47	51.12	1	NATURAL PIECE OF WOOD		1	SE-NW					birch, in trench section			Koivunen & Viljanmaa 2004
11	1152,90	2162,90	51.29	1	LATH	20	1	NE-SW					in trench section			Koivunen & Viljanmaa 2004
12	1152,65	2162,44	51.27	1	NATURAL PIECE OF WOOD		1	NW-SE					birch, in trench section			Koivunen & Viljanmaa 2004
13	1152,73	2162,33	51.21	1	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
14	1152,73	2161,97	51.28	1	PILE	10	1	NW-SE					point fragment, decayed			Koivunen & Viljanmaa 2004
15	1152,65	2161,95	51.24	1	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
16	1152,35	2161,92	51.21	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
17	1152,41	2162,48	51.22	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
18	1152,38	2162,48	51.20	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
19	1152,36	2162,60	51.21	1	NATURAL PIECE OF WOOD		1	NW-SE					in trench section			Koivunen & Viljanmaa 2004
20	1152,26	2162,10	51.24	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
21	1152,15	2162,08	51.18	1	PILE	10	1	NW-SE					point fragment, decayed			Koivunen & Viljanmaa 2004

APPENDIX II: LIST OF PURKAJASLO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
22	1152,85	2162,07	51.17	1	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
23	1152,62	2161,95	51.21	1	PILE	10	1	NW-SE	760	31	25		point fragment, thick tapering point, oblique edges, dendro sample FIO3915='different period'		4	Koivunen & Viljanmaa 2004
24	1153,03	2161,51	51.05	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
25	1157,65	2168,91	51.28	1	LATH SCREEN SECTION	20	1	NW-SE								Koivunen & Viljanmaa 2004
26	1156,86	2165,90	51.10	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
27	1156,68	2165,67	51.15	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
28	1156,66	2165,39	51.13	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
29	1156,77	2165,48	51.13	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
30	1156,59	2165,35	51.14	1	LATH	20	1	SE-NW					in trench section			Koivunen & Viljanmaa 2004
31	1156,44	2165,86	51.12	1	LATH	20	1	NW-SE					in trench section			Koivunen & Viljanmaa 2004
32	1156,47	2165,61	51.18	1	NATURAL PIECE OF WOOD		1	NW-SE					or stake fragment, in trench section			Koivunen & Viljanmaa 2004
33	1156,55	2165,59	51.16	1	NATURAL PIECE OF WOOD		1	SE-NW					halved or split			Koivunen & Viljanmaa 2004
34	1156,20	2165,93	51.15	1	LATH	20	1	NW-SE					in trench section			Koivunen & Viljanmaa 2004
35	1156,39	2165,60	51.16	1	LATH	20	1	NW-SE					in trench section			Koivunen & Viljanmaa 2004
36	1156,30	2165,86	51.16	1	PILE	10	1	NW-SE					end fragment, cut straight			Koivunen & Viljanmaa 2004
37	1156,41	2165,18	51.13	1	PILE	10	1	NW-SE					point fragment, broken			Koivunen & Viljanmaa 2004
38	1156,53	2165,03	51.14	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
39	1156,06	2165,58	51.18	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
40	1156,09	2165,27	51.19	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
41	1156,07	2165,09	51.19	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
42	1156,02	2164,84	51.17	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
43	1156,35	2165,13	51.14	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
44	1156,29	2165,04	51.14	1	STAKE	10	2	NW-SE					point fragment, decayed			Koivunen & Viljanmaa 2004
45	1156,07	2164,74	51.15	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
46	1156,22	2164,74	51.14	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
47	1156,47	2165,21	51.12	1	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
48	1156,37	2164,74	51.10	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
49	1156,26	2164,80	51.14	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
50	1156,39	2164,55	51.03	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
51	1156,91	2164,02	51.09	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
52	1156,96	2164,01	51.09	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
53	1157,24	2164,68	51.02	1	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
54	1157,19	2165,30	51.02	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
55	1157,54	2165,28	51.05	1	PILE	10	1	NW-SE					tapering point			Koivunen & Viljanmaa 2004
56	1157,48	2165,38	51.05	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
57	1157,58	2165,15	51.03	1	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
58	1157,61	2165,69	51.07	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
59	1157,90	2165,87	51.03	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
60	1158,01	2165,78	51.05	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
61	1157,94	2165,78	51.05	1	NATURAL PIECE OF WOOD		1	NW-SE					branch			Koivunen & Viljanmaa 2004
62	1157,87	2164,95	51.03	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
63	1157,95	2164,66	51.04	1	PILE	10	1	NW-SE					end fragment, tool marks			Koivunen & Viljanmaa 2004
64	1158,06	2164,70	51.08	1	NATURAL PIECE OF WOOD		1	NW-SE					dendro sample			Koivunen & Viljanmaa 2004
65	1157,47	2165,87	51.10	1	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
66	1157,98	2165,09	51.05	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
67	1157,15	2167,30	51.26	1	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
68	1157,97	2167,99	51.26	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
69	1157,78	2167,96	51.16	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
70	1153,73	2167,77	51.15	1	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
71	1157,70	2167,40	51.16	1	PILE	10	2	SE-NW					point, decayed			Koivunen & Viljanmaa 2004
72	1157,57	2167,11	51.26	1	STAKE	10	1	NE-SW					point fragment			Koivunen & Viljanmaa 2004
73	1157,57	2166,71	51.20	1	NATURAL PIECE OF WOOD		1	SE-NW					decayed			Koivunen & Viljanmaa 2004
74	1157,11	2167,01	51.24	1	LATH	20	1	NW-SE					in trench section			Koivunen & Viljanmaa 2004
75	1157,15	2166,88	51.21	1	NATURAL PIECE OF WOOD		1	NW-SE					or stake fragment, in trench section			Koivunen & Viljanmaa 2004
76	1157,34	2166,63	51.20	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
77	1157,19	2166,42	51.21	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
78	1157,35	2166,31	51.20	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
79	1157,38	2166,39	51.19	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
80	1157,45	2166,53	51.20	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
81	1157,68	2166,51	51.18	1	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
82	1157,77	2166,32	51.20	1	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
83	1157,96	2166,40	51.14	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
84	1158,07	2166,41	51.12	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
85	1157,99	2166,59	51.14	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
86	1158,23	2166,51	51.12	1	WOODEN ARTEFACT	20	1	NW-SE	870	113	58		plank-shaped object, one end notched, the other made narrower		5	Koivunen & Viljanmaa 2004
87	1158,07	2166,72	51.13	1	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
88	1158,06	2166,61	51.13	1	PILE	10	1	NW-SE					blunt point			Koivunen & Viljanmaa 2004
89	1158,14	2166,89	51.15	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
90	1158,37	2166,89	51.12	1	PILE	10	1	NW-SE					point fragment			Koivunen & Viljanmaa 2004
91	1158,32	2165,62	51.06	1	PILE	10	1	NW-SE					angular point, peg-shaped end made narrower, decayed and fragile			Koivunen & Viljanmaa 2004
92	1158,49	2166,33	51.10	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
93	1158,60	2166,58	51.13	1	PILE	10	1	SE-NW					end fragment, notched, decayed			Koivunen & Viljanmaa 2004
94	1158,91	2166,51	51.18	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
95	1158,68	2166,10	51.16	1	LATH SCREEN SECTION	20	1	NW-SE					three lath fragments bound together with birch bark binding, willow twig underneath			Koivunen & Viljanmaa 2004
96	1152,40	2159,04	51.15	1	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
97	1152,52	2159,40	51.16	1	PILE	10	1	SW-NE					chisel-shaped point, in trench section			Koivunen & Viljanmaa 2004
98	1153,50	2159,40	51.22	1	PILE	10	2	SW-NE	1250		72		partly angular point		6	Koivunen & Viljanmaa 2004
99	1154,10	2159,90	51.04	1	NATURAL PIECE OF WOOD		1	NE-SW								Koivunen & Viljanmaa 2004
100	1153,80	2160,49	50.98	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
101	1154,57	2160,28	50.99	1	NATURAL PIECE OF WOOD		1	SE-NW					branch			Koivunen & Viljanmaa 2004
102	1154,21	2160,64	50.98	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
103	1153,89	2161,05	51.02	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
104	1154,04	2161,00	51.03	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
105	1154,09	2160,97	51.01	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
106	1153,46	2159,37	50.95	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
107	1155,26	2159,08	51.11	1	NATURAL PIECE OF WOOD		1	SE-NW					or pile end, in trench section			Koivunen & Viljanmaa 2004
108	1155,65	2159,05	51.02	1	NATURAL PIECE OF WOOD		1	SE-NW					or pile end, in trench section			Koivunen & Viljanmaa 2004
109	1155,71	2159,05	51.04	1	PILE	10	1	SE-NW					end piece, rounded, in trench section			Koivunen & Viljanmaa 2004
110	1155,93	2159,02	51.04	1	PILE	10	1	SE-NW					tapering point, in trench section			Koivunen & Viljanmaa 2004
111	1156,07	2159,03	51.08	1	PILE	10	1	SE-NW					end fragment, rounded, in trench section			Koivunen & Viljanmaa 2004
112	1156,11	2159,02	51.14	1	LATH	20	1	SE-NW					in trench section			Koivunen & Viljanmaa 2004
113	1157,08	2159,29	51.01	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
114	1157,10	2159,44	51.00	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
115	1157,22	2159,10	51.06	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
116	1157,37	2159,40	51.13	1	PILE	10	1	NW-SE					tapering point, in trench section			Koivunen & Viljanmaa 2004
117	1157,32	2159,36	51.02	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
118	1157,44	2159,41	51.10	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
119	1157,48	2159,22	51.09	1	PILE	10	1	SE-NW					oblique point fragment			Koivunen & Viljanmaa 2004
120	1157,60	2159,10	51.03	1	NATURAL PIECE OF WOOD		1	NW-SE					branch			Koivunen & Viljanmaa 2004
121	1158,03	2159,54	51.03	1	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
122	1157,82	2159,49	51.01	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
123	1157,98	2160,01	51.02	1	WEDGE	10	1	NW-SE	510		42		complete, wedge-shaped point, end split and halved		7	Koivunen & Viljanmaa 2004
124	1157,82	2159,76	51.00	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
125	1157,73	2160,07	51.00	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
126	1157,46	2159,89	50.99	1	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
127	1157,76	2160,17	51.07	1	PILE	10	1	NW-SE								Koivunen & Viljanmaa 2004
128	1157,89	2160,39	50.99	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
129	1155,83	2160,82	51.03	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
130	1155,82	2160,95	51.00	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
131	1155,69	2161,10	51.00	1	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
132	1155,73	2161,36	51.03	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
133	1155,42	2161,56	51.09	1	PILE	10	1	NW-SE	1060		72		point fragment, pencil-shaped point (6 facets), facets slightly concave, elaborate object		8	Koivunen & Viljanmaa 2004
134	1155,37	2161,63	51.10	1	PILE	10	1	NW-SE					end fragment, split			Koivunen & Viljanmaa 2004
135	1155,54	2161,99	50.97	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
136	1153,40	2160,00	50.84	2	LATH SCREEN SECTION	20	1	NW-SE	1700		500		10 laths and four birch mark bindings supported with willow twigs		9	Koivunen & Viljanmaa 2004
137	1158,13	2159,38	51.08	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
138	1158,23	2159,50	51.15	1	NATURAL PIECE OF WOOD		1	NW-SE					worm holes			Koivunen & Viljanmaa 2004
139	1158,13	2160,43	51.05	1	PILE	10	1	NW-SE	2340		66		complete? Pencil-shaped point (8 facets), notch in the middle, trimmed, carelessly worked		10	Koivunen & Viljanmaa 2004
140	1158,12	2160,16	51.06	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
141	1158,07	2160,21	51.06	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
142	1158,45	2161,77	51.03	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
143	1158,02	2160,32	51.03	1	NATURAL PIECE OF WOOD		2	SW-NE								Koivunen & Viljanmaa 2004
144	1158,30	2160,14	51.05	1	PILE	10	2	NW-SE					decayed			Koivunen & Viljanmaa 2004

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
145	1158,41	2159,91	51.09	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
146	1158,44	2159,84	51.14	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
147	1158,53	2159,91	51.17	1	NATURAL PIECE OF WOOD		1	NW-SE					in trench section			Koivunen & Viljanmaa 2004
148	1158,34	2160,22	51.05	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
149	1158,45	2160,29	51.03	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
150	1157,99	2160,68	51.00	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
151	1157,99	2160,80	51.00	1	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
152	1157,87	2161,29	51.03	1	PILE	10	1	NW-SE					point fragment, weak tool marks			Koivunen & Viljanmaa 2004
153	1158,50	2162,07	51.05	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
154	1158,68	2162,71	51.05	1	LATH	20	1	NW-SE	2150				length 215 cm, fragmented in several parts, talteen		11	Koivunen & Viljanmaa 2004
155	1158,52	2162,28	51.05	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
156	1158,65	2162,01	51.10	1	NATURAL PIECE OF WOOD		1	SE-NW					tree stump			Koivunen & Viljanmaa 2004
157	1158,68	2161,84	51.06	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
158	1158,66	2161,75	51.03	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
159	1158,88	2162,13	51.06	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
160	1158,89	2162,38	51.08	1	PILE	10	1	NW-SE					end fragment, tool marks			Koivunen & Viljanmaa 2004
161	1158,85	2162,32	51.07	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
162	1158,80	2162,72	51.07	1	NATURAL PIECE OF WOOD		1	NW-SE					tree stump			Koivunen & Viljanmaa 2004
163	1158,55	2162,85	51.04	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
164	1158,70	2163,07	51.05	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
165	1159,01	2163,38	51.07	1	LATH	20	2	NW-SE								Koivunen & Viljanmaa 2004
166	1158,61	2162,24	51.06	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
167	1158,77	2163,66	51.10	1	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
168	1158,54	2163,72	51.00	1	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
169	1158,69	2163,73	51.09	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
170	1158,81	2163,52	51.09	1	LATH	20	2	NW-SE								Koivunen & Viljanmaa 2004
171	1159,00	2161,65	51.12	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
172	1159,28	2162,06	51.13	1	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
173	1159,11	2161,57	51.10	1	NATURAL PIECE OF WOOD		1	NW-SE					tree stump			Koivunen & Viljanmaa 2004
174	1159,88	2162,29	51.14	1	PILE	10	1	SW-NE					tapering point, decayed, in trench section			Koivunen & Viljanmaa 2004
175	1159,38	2162,46	51.20	1	PILE	10	1	NW-SE					point fragment, tapering point, decayed			Koivunen & Viljanmaa 2004
176	1159,11	2164,06	51.12	1	WOODEN ARTEFACT	10	1	NW-SE	540				lath and twig attached with birch bark strip		12	Koivunen & Viljanmaa 2004
177	1159,15	2164,07	51.11	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
178	1159,11	2164,23	51.12	1	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
179	1158,98	2163,76	51.10	1	PILE	10	1	SE-NW	1120		66		point fragment, pencil-shaped point (7 facets)		13	Koivunen & Viljanmaa 2004
180	1158,86	2164,14	51.13	1	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
181	1158,87	2164,35	51.10	1	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
182	1158,83	2164,40	51.09	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
183	1159,28	2164,21	51.10	1	PILE	10	2	NW-SE					point fragment, birch, decayed			Koivunen & Viljanmaa 2004
184	1159,50	2164,52	51.10	1	PILE	10	1	NW-SE					point fragment, decayed			Koivunen & Viljanmaa 2004
185	1159,37	2163,78	51.08	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
186	1159,51	2164,23	51.06	1	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
187	1152,36	2162,48	51.15	2	PILE	10	2	NW-SE	1710		66		complete, point slightly angular, tool marks in the other end		14	Koivunen & Viljanmaa 2004
188	1152,33	2162,58	51.20	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
189	1152,39	2162,36	51.21	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
190	1152,28	2161,84	51.17	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
191	1152,31	2161,83	51.17	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
192	1152,52	2162,19	51.20	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
193	1152,88	2162,77	51.20	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
194	1152,67	2162,34	51.15	2	NATURAL PIECE OF WOOD		1	NW-SE					branch			Koivunen & Viljanmaa 2004
195	1152,81	2162,19	51.16	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
196	1153,02	2162,86	51.17	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
197	1152,86	2162,06	51.15	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
198	1152,96	2162,38	51.13	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
199	1153,06	2162,66	51.12	2	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
200	1153,33	2162,81	51.12	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
201	1153,45	2162,86	51.14	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
202	1153,08	2162,50	51.09	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
203	1153,30	2162,53	51.10	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
204	1153,30	2162,26	51.09	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
205	1152,95	2162,04	51.11	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
206	1153,02	2162,09	51.12	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
207	1152,95	2162,16	51.11	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
208	1152,84	2161,87	51.13	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
209	1152,87	2161,85	51.11	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
210	1152,76	2161,73	51.10	2	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
211	1153,27	2161,35	50.95	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
212	1154,27	2161,43	50.85	2	WOODEN ARTEFACT	20	1	SE-NW	1120				curved notched object, possibly boat rib		15	Koivunen & Viljanmaa 2004
213	1154,52	2161,46	50.86	2	PILE	10	1	SW-NE					end fragment, cut straight			Koivunen & Viljanmaa 2004
214	1154,40	2161,35	50.87	2	NATURAL PIECE OF WOOD		1	NE-SW					branch			Koivunen & Viljanmaa 2004
215	1154,63	2161,23	50.88	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
216	1154,50	2160,98	50.84	2	NATURAL PIECE OF WOOD		1	NW-SE					birch, bark attached			Koivunen & Viljanmaa 2004
217	1160,66	2164,05	51.17	1	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
218	1160,63	2164,59	51.14	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
219	1160,61	2163,08	51.15	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
220	1160,76	2165,10	51.17	1	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
221	1160,98	2164,90	51.16	1	PILE	10	1	NW-SE					pointed			Koivunen & Viljanmaa 2004
222	1160,91	2163,86	51.17	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
223	1161,02	2164,02	51.13	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
224	1161,04	2164,17	51.11	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
225	1161,00	2164,01	51.11	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
226	1160,98	2164,33	51.13	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
227	1160,42	2164,71	51.11	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
228	1160,42	2164,81	51.11	1	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
229	1160,84	2165,59	51.17	1	LATH SCREEN SECTION	20	1	SW-NE					two laths bound together with birch bark strip			Koivunen & Viljanmaa 2004
230	1161,72	2165,48	51.13	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
231	1160,27	2165,36	51.10	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
232	1160,19	2165,19	51.12	1	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
233	1160,12	2165,14	51.10	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
234	1160,11	2165,04	51.07	1	NATURAL PIECE OF WOOD		1	NW-SE					birch			Koivunen & Viljanmaa 2004
235	1160,52	2165,82	51.07	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
236	1159,90	2165,55	51.09	1	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
237	1159,87	2165,66	51.11	1	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
238	1159,73	2164,94	51.10	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
239	1159,74	2164,81	51.07	1	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
240	1159,75	2164,87	51.10	1	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
241	1159,80	2164,98	51.09	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
242	1159,73	2165,89	51.13	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
243	1159,69	2165,93	51.14	1	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
244	1159,34	2165,95	51.13	1	NATURAL PIECE OF WOOD		2	NW-SE					decayed			Koivunen & Viljanmaa 2004
245	1158,99	2165,61	51.16	1	PILE	10	1	SE-NW					pointed, decayed			Koivunen & Viljanmaa 2004
246	1159,08	2165,87	51.14	1	WOODEN ARTEFACT	20	1	NW-SE					angularry shaped piece of wood, decayed			Koivunen & Viljanmaa 2004
247	1159,07	2165,38	51.14	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
248	1158,98	2165,86	51.14	1	PILE	10	1	NW-SE					point fragment			Koivunen & Viljanmaa 2004
249	1158,72	2165,47	51.18	1	NATURAL PIECE OF WOOD		1	NW-SE					tree stump			Koivunen & Viljanmaa 2004
250	1158,65	2165,57	51.15	1	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
251	1158,68	2165,23	51.21	1	NATURAL PIECE OF WOOD		1	NE-SW					decayed			Koivunen & Viljanmaa 2004
252	1158,39	2165,20	51.15	1	PILE	10	1	NW-SE					point fragment			Koivunen & Viljanmaa 2004
253	1158,48	2165,33	51.17	1	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
254	1158,49	2165,18	51.16	1	NATURAL PIECE OF WOOD		1	SE-NW					decayed			Koivunen & Viljanmaa 2004
255	1158,64	2164,86	51.12	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
256	1158,78	2164,96	51.14	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
257	1158,76	2164,72	51.12	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
258	1158,96	2165,14	51.15	1	NATURAL PIECE OF WOOD		1	NW-SE					decayed, birch			Koivunen & Viljanmaa 2004
259	1158,96	2164,97	51.14	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
260	1159,06	2164,97	51.13	1	PILE	10	1	NW-SE					point fragment			Koivunen & Viljanmaa 2004
261	1159,00	2164,85	51.12	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
262	1159,32	2164,86	51.15	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
263	1159,10	2164,87	51.11	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
264	1158,20	2164,35	51.05	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
265	1158,17	2164,39	51.05	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
266	1158,15	2164,43	51.05	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
267	1157,82	2164,53	51.02	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
268	1157,88	2164,34	51.10	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
269	1157,86	2164,41	51.11	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
270	1158,49	2164,33	51.04	1	NATURAL PIECE OF WOOD		1	SW-NE					decayed			Koivunen & Viljanmaa 2004
271	1159,91	2162,35	51.11	1	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
272	1159,17	2162,55	51.08	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
273	1159,14	2165,11	51.04	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004

APPENDIX II: LIST OF PURKAJASLUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
274	1159,17	2165,04	51.04	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
275	1158,76	2164,78	51.00	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
276	1158,76	2165,19	51.09	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
277	1159,49	2164,95	51.08	1	NATURAL PIECE OF WOOD		1	SW-NE					decayed			Koivunen & Viljanmaa 2004
278	1159,59	2164,99	51.05	1	NATURAL PIECE OF WOOD								gnarl, decayed			Koivunen & Viljanmaa 2004
279	1159,50	2164,73	51.00	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
280	1159,09	2164,27	51.10	1	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
281	1159,61	2165,86	51.01	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
282	1158,43	2164,74	51.10	1	LATH SCREEN SECTION	20	1	NW-SE					three laths bound together with birch bark			Koivunen & Viljanmaa 2004
283	1157,09	2165,50	51.02	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
284	1157,23	2165,61	51.02	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
285	1157,34	2165,67	51.02	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
286	1156,00	2159,00	51.00	1	WEDGE	10			390		73		complete, short pile, wedge-shaped point, found in collapsed trench section, dendro sample FIO3918=1BC		16	Koivunen & Viljanmaa 2004
287	1163,50	2169,80	51.21	1	STAKE	10	1	NW-SE					tool marks at both ends, short			Koivunen & Viljanmaa 2004
288	1163,01	2169,46	51.21	1	WOODEN ARTEFACT	10	1	SW-NE					worked piece			Koivunen & Viljanmaa 2004
289	1163,10	2169,00	51.21	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
290	1163,54	2169,40	51.19	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
291	1162,76	2169,06	51.23	1	WOODEN ARTEFACT	20	1	NW-SE					notched object, possibly pile end			Koivunen & Viljanmaa 2004
292	1163,95	2168,70	51.24	1	PILE	10	1	NW-SE					made narrower in one end, decayed			Koivunen & Viljanmaa 2004
293	1163,83	2168,60	51.20	1	NATURAL PIECE OF WOOD		1	SE-NW					decayed			Koivunen & Viljanmaa 2004
294	1163,71	2168,83	51.20	1	NATURAL PIECE OF WOOD		1	SE-NW					branch			Koivunen & Viljanmaa 2004
295	1163,69	2168,60	51.20	1	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
296	1162,51	2167,40	51.19	1	WOODEN ARTEFACT	10	1	NW-SE					curved long piece of wood, one end made narrower			Koivunen & Viljanmaa 2004
297	1162,22	2167,01	51.15	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
298	1163,25	2167,41	51.17	1	NATURAL PIECE OF WOOD		1	NW-SE					branch			Koivunen & Viljanmaa 2004
299	1162,10	2167,88	51.20	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
300	1161,64	2167,96	51.05	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
301	1161,81	2167,83	51.07	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
302	1161,91	2167,82	51.08	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
303	1161,93	2167,51	51.14	1	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
304	1161,52	2168,28	51.14	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
305	1161,42	2167,93	51.17	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
306	1161,12	2168,31	51.14	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
307	1161,18	2168,29	51.13	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
308	1160,40	2167,44	51.03	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
309	1160,67	2168,61	51.08	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
310	1160,48	2168,22	51.09	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
311	1160,46	2168,03	51.08	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
312	1160,72	2168,23	51.03	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
313	1160,50	2168,43	51.10	1	NATURAL PIECE OF WOOD		1	NW-SE					tree stump			Koivunen & Viljanmaa 2004
314	1160,59	2169,61	51.10	1	NATURAL PIECE OF WOOD		1	NW-SE					charred			Koivunen & Viljanmaa 2004
315	1160,10	2169,00	51.05	1	LATH SCREEN SECTION	20	2	SE-NW								Koivunen & Viljanmaa 2004
316	1160,78	2168,97	51.06	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
317	1161,09	2169,24	51.04	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
318	1160,84	2168,76	51.05	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
319	1160,96	2166,31	51.13	1	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
320	1157,30	2169,98	51.15	1	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
321	1157,51	2170,04	51.16	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
322	1158,43	2170,11	51.18	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
323	1158,59	2170,22	51.14	1	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
324	1158,44	2169,96	51.18	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
325	1158,72	2170,04	51.22	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
326	1158,67	2169,43	51.32	1	WEDGE	10	1	NE-SW	840		58		complete, wedge-shaped point		17	Koivunen & Viljanmaa 2004
327	1159,18	2169,84	51.32	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
328	1158,90	2169,66	51.27	1	STAKE	10	1	NW-SE	1480		42		point fragment, pencil-shaped point (8-9 facets)		18	Koivunen & Viljanmaa 2004
329	1158,75	2169,42	51.28	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
330	1158,61	2169,01	51.23	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
331	1158,58	2169,01	51.23	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
332	1158,74	2169,00	51.25	1	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
333	1159,19	2170,60	51.30	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
334	1159,34	2170,30	51.26	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
335	1159,28	2170,22	51.24	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
336	1159,25	2170,08	51.24	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
337	1159,15	2169,88	51.24	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
338	1159,09	2170,60	51.24	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
339	1159,55	2170,34	51.27	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
340	1159,68	2170,22	51.19	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
341	1160,02	2170,35	51.21	1	NATURAL PIECE OF WOOD		1	NW-SE					birch, decayed			Koivunen & Viljanmaa 2004
342	1160,06	2170,70	51.25	1	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
343	1159,86	2169,72	51.21	1	NATURAL PIECE OF WOOD		1	NE-SW					fork, decayed			Koivunen & Viljanmaa 2004
344	1159,56	2169,90	51.25	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
345	1159,66	2170,01	51.21	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
346	1159,42	2169,58	51.23	1	NATURAL PIECE OF WOOD		1	NW-SE					birch			Koivunen & Viljanmaa 2004
347	1159,37	2169,64	51.26	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
348	1159,37	2169,34	51.24	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
349	1159,13	2169,30	51.24	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
350	1159,19	2169,30	51.24	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
351	1159,20	2169,61	51.28	1	PILE	10	1	SE-NW					wedge-shaped point, decayed			Koivunen & Viljanmaa 2004
352	1159,11	2169,60	51.29	1	PILE	10	1	NW-SE					point fragment, decayed			Koivunen & Viljanmaa 2004
353	1158,96	2169,92	51.23	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
354	1158,70	2168,62	51.18	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
355	1158,77	2168,96	51.28	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
356	1160,35	2168,15	51.10	1	STAKE	10	1	NW-SE					point fragment, decayed			Koivunen & Viljanmaa 2004
357	1160,44	2168,64	51.10	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
358	1158,41	2168,90	51.32	1	NATURAL PIECE OF WOOD		1	NW-SE					tree stump			Koivunen & Viljanmaa 2004
359	1158,86	2169,09	51.24	1	PILE	10	1	NW-SE					point fragment			Koivunen & Viljanmaa 2004
360	1162,10	2160,30	50.87	1	LATH SCREEN SECTION	20	1	NW-SE	1700	400			11 laths bound together with birch bark strips, supported with willow twigs		19	Koivunen & Viljanmaa 2004
361	1162,28	2166,75	50.93	1	WEDGE	10	1	NW-SE	340		95		complete, short and sturdy wedge, wedge-shaped point		20	Koivunen & Viljanmaa 2004
362	1162,66	2167,13	50.88	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
363	1162,71	2166,95	50.88	1	NATURAL PIECE OF WOOD		1	SW-NE					tree stump			Koivunen & Viljanmaa 2004
364	1162,53	2166,73	50.88	1	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
365	1162,62	2166,67	50.89	1	PILE	10	1	SW-NE					pencil-shaped point (7 facets), birch			Koivunen & Viljanmaa 2004
366	1162,75	2166,81	50.87	1	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
367	1162,92	2166,91	50.89	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
368	1162,89	2166,91	50.85	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
369	1163,00	2166,97	50.87	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
370	1162,79	2166,78	50.84	1	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
371	1162,29	2166,51	50.86	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
372	1160,86	2170,60	51.03	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
373	1160,83	2170,74	51.04	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
374	1160,82	2170,79	51.03	1	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
375	1160,80	2170,58	51.03	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
376	1160,50	2170,75	51.00	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
377	1160,64	2170,91	50.99	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
378	1160,77	2170,81	51.05	1	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
379	1160,30	2170,94	50.93	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
380	1160,56	2170,73	51.05	1	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
381	1159,49	2162,14	51.05	2	PILE	10	1	NW-SE	900		65		possibly complete, peg-shaped end, notched, birch, bark attached		21	Koivunen & Viljanmaa 2004
382	1159,65	2162,48	51.05	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
383	1159,68	2162,29	51.02	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
384	1159,68	2162,19	51.00	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
385	1160,01	2162,57	51.01	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
386	1160,28	2162,94	51.03	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
387	1159,94	2162,67	51.04	2	NATURAL PIECE OF WOOD		1	NE-SW								Koivunen & Viljanmaa 2004
388	1158,85	2163,35	50.86	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
389	1158,63	2163,73	50.96	2	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
390	1158,96	2163,76	50.98	2	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
391	1159,12	2163,79	51.03	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
392	1159,26	2164,00	51.02	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
393	1159,14	2163,86	50.99	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
394	1159,15	2163,48	50.98	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
395	1159,39	2163,46	51.06	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
396	1159,52	2163,67	51.05	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
397	1159,50	2163,75	51.05	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
398	1159,45	2163,81	51.06	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004

APPENDIX II: LIST OF PURKAJASLO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
399	1159,49	2163,84	51.08	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
400	1159,86	2164,30	50.96	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
401	1159,73	2164,32	50.98	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
402	1159,75	2164,32	50.95	2	NATURAL PIECE OF WOOD		1	SE-NW					halved or split			Koivunen & Viljanmaa 2004
403	1159,55	2164,24	50.95	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
404	1159,76	2165,56	50.99	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
405	1159,84	2164,63	51.00	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
406	1159,95	2164,92	50.98	2	STAKE	10	1	SE-NW					end fragment, tool marks			Koivunen & Viljanmaa 2004
407	1160,05	2164,90	50.96	2	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
408	1160,26	2164,91	50.95	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
409	1160,53	2165,22	51.00	2	NATURAL PIECE OF WOOD		1	NE-SW					birch, bark attached, dendro sample			Koivunen & Viljanmaa 2004
410	1160,50	2165,34	51.00	2	NATURAL PIECE OF WOOD		1	NE-SW								Koivunen & Viljanmaa 2004
411	1160,42	2165,67	51.01	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
412	1160,00	2165,82	51.03	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
413	1160,14	2165,88	51.02	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
414	1160,12	2166,06	50.99	2	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
415	1159,97	2165,38	51.03	2	PILE	10	1	NW-SE					pointed, decayed			Koivunen & Viljanmaa 2004
416	1159,94	2165,96	51.02	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
417	1159,89	2166,06	51.00	2	STAKE	10	1	NW-SE					pointed			Koivunen & Viljanmaa 2004
418	1159,93	2166,35	50.99	2	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
419	1159,87	2166,08	51.00	2	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
420	1159,77	2165,91	51.03	2	PILE	10	1	NW-SE					point fragment			Koivunen & Viljanmaa 2004
421	1159,89	2165,57	51.07	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
422	1159,83	2165,50	51.07	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
423	1159,76	2165,02	51.11	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
424	1159,82	2165,07	51.06	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
425	1159,86	2165,06	51.06	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
426	1159,77	2165,02	51.09	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
427	1159,38	2164,63	51.06	2	STAKE	10	1	NE-SW	1240		30		point fragment, pencil-shaped point (6 facets)		22	Koivunen & Viljanmaa 2004
428	1159,51	2164,80	51.09	2	NATURAL PIECE OF WOOD		1	NE-SW								Koivunen & Viljanmaa 2004
429	1159,45	2164,32	50.97	2	STAKE	10	2	SE-NW	1560		38		complete, tapering point, end cut straight		23	Koivunen & Viljanmaa 2004
430	1159,59	2164,57	50.97	2	PILE	10	1	NW-SE					point fragment, decayed			Koivunen & Viljanmaa 2004
431	1159,41	2164,11	50.97	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
432	1159,27	2164,03	51.00	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
433	1159,38	2164,02	51.02	2	NATURAL PIECE OF WOOD		1	NE-SW								Koivunen & Viljanmaa 2004
434	1159,44	2164,55	51.00	2	PILE	10	1	NW-SE					point fragment			Koivunen & Viljanmaa 2004
435	1159,35	2164,51	51.02	2	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
436	1159,22	2164,39	51.02	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
437	1159,00	2164,28	51.07	2	NATURAL PIECE OF WOOD		1	SW-NE	320	210	1		pine bark sheet		24	Koivunen & Viljanmaa 2004
438	1158,92	2164,08	51.02	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
439	1159,33	2164,82	51.01	2	NATURAL PIECE OF WOOD		2	NW-SE								Koivunen & Viljanmaa 2004
440	1159,67	2165,36	51.12	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
441	1159,43	2164,97	51.07	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
442	1158,18	2164,64	51.00	2	STAKE	10	1	NW-SE	400		38		point fragment, chisel-shaped point		25	Koivunen & Viljanmaa 2004
443	1158,54	2165,15	51.00	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
444	1158,50	2164,33	51.05	2	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
445	1158,59	2164,58	50.97	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
446	1158,57	2164,76	51.06	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
447	1158,38	2164,78	51.01	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
448	1158,27	2165,09	51.03	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
449	1158,25	2164,89	51.02	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
450	1158,23	2164,63	50.98	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
451	1158,20	2165,80	51.00	2	NATURAL PIECE OF WOOD		2	NW-SE								Koivunen & Viljanmaa 2004
452	1158,07	2164,98	51.02	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
453	1158,00	2164,63	50.93	2	LATH	20	2	NW-SE								Koivunen & Viljanmaa 2004
454	1158,12	2164,45	50.97	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
455	1157,98	2165,08	51.01	2	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
456	1158,39	2165,28	51.05	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
457	1158,04	2165,33	51.03	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
458	1158,02	2165,31	51.02	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
459	1157,90	2165,40	51.02	2	NATURAL PIECE OF WOOD		1	NW-SE					tree roots			Koivunen & Viljanmaa 2004
460	1157,87	2165,10	50.97	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
461	1157,85	2165,24	50.93	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
462	1157,76	2165,10	50.95	2	LATH	20	2	NW-SE								Koivunen & Viljanmaa 2004
463	1157,69	2165,33	50.97	2	LATH SCREEN SECTION	20	1	NW-SE					two laths bound together with birch bark strip			Koivunen & Viljanmaa 2004
464	1157,76	2165,37	50.99	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
465	1157,60	2165,40	51.01	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
466	1157,45	2165,66	51.02	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
467	1157,39	2165,32	51.01	2	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
468	1157,23	2165,61	50.98	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
469	1157,09	2165,88	50.99	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
470	1157,06	2166,00	51.00	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
471	1156,50	2165,73	50.96	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
472	1157,50	2165,23	51.03	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
473	1156,63	2165,91	50.93	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
474	1156,67	2165,83	50.93	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
475	1156,90	2165,72	50.93	2	WOODEN ARTEFACT	20	1	NE-SW					quadrangular cross-section			Koivunen & Viljanmaa 2004
476	1156,78	2165,79	50.92	2	NATURAL PIECE OF WOOD		1	NW-SE					root fragment			Koivunen & Viljanmaa 2004
477	1156,84	2165,88	50.92	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
478	1156,99	2165,87	51.03	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
479	1156,21	2165,69	50.92	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
480	1157,03	2166,87	51.14	2	PILE	10	1	NW-SE					point fragment			Koivunen & Viljanmaa 2004
481	1157,10	2166,95	51.10	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
482	1157,03	2166,34	51.09	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
483	1157,16	2167,51	51.10	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
484	1157,30	2167,43	51.10	2	PILE	10	1	SE-NW					oblique point fragment			Koivunen & Viljanmaa 2004
485	1157,20	2166,92	51.09	2	NATURAL PIECE OF WOOD		1	SE-NW					decayed			Koivunen & Viljanmaa 2004
486	1157,16	2166,98	51.07	2	STAKE	10	1	SE-NW					end fragment, carved			Koivunen & Viljanmaa 2004
487	1157,33	2167,10	51.11	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
488	1157,35	2167,05	51.06	2	PILE	10	1	SE-NW					pointed			Koivunen & Viljanmaa 2004
489	1157,47	2167,14	51.03	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
490	1157,59	2167,22	51.06	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
491	1157,57	2167,23	51.01	2	NATURAL PIECE OF WOOD		1	NW-SE					branch			Koivunen & Viljanmaa 2004
492	1157,37	2166,95	51.05	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
493	1157,25	2166,61	51.13	2	NATURAL PIECE OF WOOD		1	NW-SE					birch, bark attached			Koivunen & Viljanmaa 2004
494	1157,17	2166,45	51.12	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
495	1157,28	2166,20	51.08	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
496	1157,23	2166,22	51.07	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
497	1157,18	2166,21	51.06	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
498	1157,57	2166,82	51.02	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
499	1157,56	2166,88	51.04	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
500	1157,72	2166,76	51.05	2	LATH	20	1	NW-SE					in two pieces			Koivunen & Viljanmaa 2004
501	1157,47	2166,61	51.05	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
502	1157,56	2166,64	51.04	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
503	1157,37	2166,36	51.06	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
504	1157,45	2166,25	51.08	2	NATURAL PIECE OF WOOD		1	NW-SE					branch			Koivunen & Viljanmaa 2004
505	1157,52	2166,29	51.07	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
506	1157,51	2166,18	51.07	2	LATH	20	1	NW-SE					charred			Koivunen & Viljanmaa 2004
507	1157,54	2166,08	51.06	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
508	1157,36	2165,84	51.02	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
509	1157,78	2166,07	51.03	2	NATURAL PIECE OF WOOD		1	NW-SE					dendro sample			Koivunen & Viljanmaa 2004
510	1157,31	2165,88	50.99	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
511	1157,82	2166,49	51.02	2	NATURAL PIECE OF WOOD		1	NW-SE					branch			Koivunen & Viljanmaa 2004
512	1157,97	2166,10	51.02	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
513	1157,91	2166,14	51.02	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
514	1157,87	2166,18	51.00	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
515	1158,00	2165,68	51.02	2	WEDGE	10	1	NW-SE	390		65		complete wedge, wedge-shaped point		26	Koivunen & Viljanmaa 2004
516	1158,06	2166,23	51.02	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
517	1157,76	2165,73	51.03	2	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
518	1158,00	2165,96	51.03	2	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
519	1158,06	2166,84	51.00	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
520	1158,03	2166,75	51.02	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
521	1158,05	2166,56	51.03	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
522	1158,19	2166,80	51.03	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
523	1158,30	2166,66	51.07	2	NATURAL PIECE OF WOOD		1	NW-SE					dendro sample			Koivunen & Viljanmaa 2004
524	1158,44	2166,67	51.02	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
525	1158,53	2166,38	50.96	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
526	1158,38	2166,26	51.06	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
527	1158,26	2166,22	51.02	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
528	1158,30	2165,98	51.02	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
529	1158,49	2164,82	51.01	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
530	1158,55	2165,55	51.03	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
531	1158,45	2165,13	51.04	2	NATURAL PIECE OF WOOD		1	NW-SE					birch, bark attached			Koivunen & Viljanmaa 2004
532	1158,84	2165,98	51.04	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
533	1158,81	2165,74	51.10	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
534	1159,56	2167,23	50.98	2	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
535	1159,33	2166,91	50.97	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
536	1159,35	2166,90	50.96	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
537	1159,53	2167,05	50.96	2	PILE	10	1	NW-SE					end fragment, chisel-shaped end			Koivunen & Viljanmaa 2004
538	1159,63	2167,05	50.99	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
539	1159,53	2166,70	50.99	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
540	1159,47	2166,67	51.01	2	NATURAL PIECE OF WOOD		1	NE-SW								Koivunen & Viljanmaa 2004
541	1159,25	2166,45	50.97	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
542	1160,41	2166,60	50.98	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
543	1160,25	2166,67	50.98	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
544	1159,49	2166,46	51.03	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
545	1159,28	2166,01	51.07	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
546	1159,19	2165,93	51.10	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
547	1159,07	2165,77	51.08	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
548	1159,59	2166,41	51.03	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
549	1159,64	2166,38	51.01	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
550	1159,56	2166,05	51.01	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
551	1159,28	2165,76	51.04	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
552	1159,43	2165,44	51.05	2	PILE	10	1	SE-NW					pointed, decayed			Koivunen & Viljanmaa 2004
553	1159,72	2166,21	51.01	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
554	1157,87	2165,71	51.05	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
555	1157,32	2165,80	51.02	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
556	1159,20	2165,01	51.07	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
557	1159,02	2164,69	51.08	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
558	1159,14	2164,99	51.09	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
559	1159,10	2165,07	51.08	2	NATURAL PIECE OF WOOD		1	NW-SE					branch			Koivunen & Viljanmaa 2004
560	1159,13	2164,94	51.08	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
561	1159,09	2164,90	51.07	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
562	1159,05	2165,10	51.06	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
563	1158,98	2165,13	51.04	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
564	1158,88	2164,90	51.03	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
565	1158,85	2164,73	51.02	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
566	1158,81	2164,69	51.00	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
567	1158,68	2164,70	50.98	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
568	1158,81	2165,14	51.05	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
569	1158,76	2165,25	51.03	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
570	1158,87	2165,55	51.02	2	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
571	1158,84	2165,53	51.03	2	NATURAL PIECE OF WOOD		1	NW-SE					branch			Koivunen & Viljanmaa 2004
572	1158,73	2165,49	51.04	2	NATURAL PIECE OF WOOD		1	NW-SE					roots			Koivunen & Viljanmaa 2004
573	1158,67	2165,50	50.99	2	NATURAL PIECE OF WOOD		1	SE-NW					branch			Koivunen & Viljanmaa 2004
574	1158,53	2165,20	51.03	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
575	1160,26	2165,18	51.04	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
576	1160,22	2165,14	51.00	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
577	1157,64	2165,81	51.00	2	WOODEN ARTEFACT	20	1	NW-SE					one edge worked, the other charred			Koivunen & Viljanmaa 2004
578	1157,54	2166,62	51.03	2	WOODEN ARTEFACT		1	SW-NE					flat sheet of wood, possibly worked			Koivunen & Viljanmaa 2004
579	1163,04	2165,42	50.92	1	LATH SCREEN SECTION	20	1	E-W	1500	600			18 laths and four birch bark bindings, supported with willog twigs		27	Koivunen & Viljanmaa 2004
580	1160,10	2165,40	50.98	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
581	1159,87	2166,56	51.05	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
582	1159,74	2166,07	51.03	2	PILE	10	1	NW-SE					both ends carved, decayed			Koivunen & Viljanmaa 2004
583	1159,49	2165,14	50.98	2	NATURAL PIECE OF WOOD		1	NW-SE					birch			Koivunen & Viljanmaa 2004
584	1159,38	2165,84	51.06	2	PEG	10	1	NW-SE					pointed			Koivunen & Viljanmaa 2004
585	1158,91	2166,83	50.93	2	LATH SCREEN SECTION	20	1	NW-SE					two rows of birch bark binding strips			Koivunen & Viljanmaa 2004
586	1159,63	2169,77	51.11	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
587	1159,54	2169,76	51.11	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
588	1159,43	2169,74	51.10	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
589	1159,57	2169,73	51.09	2	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
590	1159,45	2169,48	51.10	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
591	1159,31	2169,30	51.09	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
592	1159,27	2169,30	51.09	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
593	1158,97	2169,07	51.06	2	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
594	1158,65	2169,15	51.11	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
595	1158,93	2169,11	51.09	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
596	1158,91	2169,17	51.11	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
597	1158,86	2169,07	51.12	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
598	1158,82	2169,14	51.13	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
599	1158,78	2168,99	51.10	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
600	1158,70	2169,00	51.10	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
601	1158,70	2169,06	51.10	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
602	1158,59	2169,03	51.12	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
603	1158,42	2168,83	51.17	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
604	1158,43	2168,82	51.12	2	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
605	1158,37	2168,82	51.15	2	PILE	10	1	NW-SE					end fragment, rounded			Koivunen & Viljanmaa 2004
606	1158,24	2168,74	51.16	2	STAKE	10	1	NW-SE	920		31		pencil-shaped point (5 facets)		28	Koivunen & Viljanmaa 2004
607	1158,19	2168,75	51.16	2	STAKE	10	1	NW-SE					fragment, end made narrower			Koivunen & Viljanmaa 2004
608	1158,24	2168,64	51.16	2	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
609	1157,94	2168,10	51.08	2	PILE	10	1	SE-NW	1130		78		point fragment, spike		29	Koivunen & Viljanmaa 2004
610	1157,62	2168,02	51.06	2	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
611	1157,59	2168,13	51.05	2	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
612	1159,61	2164,36	50.96	3	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
613	1159,57	2164,19	50.93	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
614	1159,53	2164,47	50.90	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
615	1159,80	2164,74	50.93	3	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
616	1160,00	2165,01	50.96	3	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
617	1160,32	2165,65	50.92	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
618	1160,35	2165,58	50.91	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
619	1159,72	2165,96	50.87	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
620	1160,00	2166,35	50.93	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
621	1160,00	2166,47	50.93	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
622	1159,77	2166,29	50.94	3	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
623	1159,84	2166,62	50.86	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
624	1159,90	2166,88	50.90	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
625	1159,84	2166,96	50.92	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
626	1159,48	2166,34	50.95	3	PILE	10	1	NW-SE					pencil-shaped point (7 facets), birch			Koivunen & Viljanmaa 2004
627	1159,38	2166,50	50.91	3	STAKE	10	1	NW-SE	880		42		chisel-shaped point, notched		30	Koivunen & Viljanmaa 2004
628	1159,62	2166,40	50.89	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
629	1159,53	2166,09	50.99	3	STAKE	10	1	NW-SE	580		32		point fragment, pencil-shaped point (7 facets), birch		31	Koivunen & Viljanmaa 2004
630	1159,40	2166,08	50.95	3	LATH	20	1	NE-SW								Koivunen & Viljanmaa 2004
631	1159,54	2166,21	50.93	3	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
632	1159,45	2165,71	50.99	3	STAKE	10	1	SE-NW	770		26		chisel-shaped point, end missing, notched		32	Koivunen & Viljanmaa 2004
633	1159,30	2164,93	51.01	3	PILE	10	1	NW-SE	1530		70		sharp and partly angular point		33	Koivunen & Viljanmaa 2004
634	1159,18	2164,39	50.99	3	WOODEN ARTEFACT	10	1	NW-SE					branch, one end pointed			Koivunen & Viljanmaa 2004
635	1159,47	2164,78	50.99	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
636	1159,42	2164,75	50.97	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
637	1159,71	2165,15	50.99	3	LATH	20	3	NW-SE					wood surface			Koivunen & Viljanmaa 2004
638	1159,78	2165,18	50.98	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
639	1159,82	2165,20	51.00	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
640	1159,84	2165,20	50.99	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
641	1159,89	2165,10	50.97	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
642	1159,88	2165,18	50.98	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
643	1159,92	2165,32	50.93	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
644	1159,90	2165,45	50.94	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
645	1159,73	2165,48	50.98	3	LATH SCREEN SECTION	20	1	NW-SE					two laths and birch bark binding			Koivunen & Viljanmaa 2004
646	1159,77	2165,65	50.98	3	PILE	10	1	NW-SE					end fragment made narrower			Koivunen & Viljanmaa 2004
647	1159,49	2165,24	50.94	3	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
648	1159,48	2165,47	50.95	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
649	1159,40	2164,98	50.95	3	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
650	1159,35	2164,98	50.96	3	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
651	1159,17	2164,63	51.00	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
652	1159,20	2165,07	50.95	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
653	1159,12	2164,88	50.95	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
654	1158,96	2164,80	51.01	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
655	1159,17	2166,17	51.01	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
656	1158,96	2165,03	50.98	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
657	1159,16	2165,40	50.96	3	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004

APPENDIX II: LIST OF PURKAJASUO WOOD FINDS

wood n:o	x	y	metres asl.	layer	wood find category	wood working state	position	direction	length	breadth	thickness	preservation cond.	info	KM n:o	id	fieldwork
658	1159,19	2165,44	50.94	3	WOODEN ARTEFACT	20	1	NW-SE	1350		47		curved wood, one part made narrower, binding depression, deformed under sediment		34	Koivunen & Viljanmaa 2004
659	1159,19	2165,68	51.01	3	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
660	1158,94	2165,81	50.94	3	PILE	10	1	NW-SE	1220		62		peg-shaped end, the other end deformed in water		35	Koivunen & Viljanmaa 2004
661	1159,01	2166,15	50.90	3	NATURAL PIECE OF WOOD		1	NW-SE					decayed			Koivunen & Viljanmaa 2004
662	1159,20	2166,21	50.90	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
663	1159,01	2165,54	51.00	3	NATURAL PIECE OF WOOD		1	NW-SE					charred, possibly firewood			Koivunen & Viljanmaa 2004
664	1158,98	2165,51	51.00	3	WOODEN ARTEFACT	10	1	NW-SE					one end made oblique			Koivunen & Viljanmaa 2004
665	1159,42	2165,80	50.98	3	NATURAL PIECE OF WOOD		2	NW-SE								Koivunen & Viljanmaa 2004
666	1159,06	2165,54	50.97	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
667	1158,94	2165,60	51.04	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
668	1158,87	2165,55	51.02	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
669	1158,81	2165,64	50.97	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
670	1158,78	2165,18	50.99	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
671	1158,84	2165,18	51.00	3	PILE	10	1	NW-SE	1020		70		possibly complete, chisel-shaped point		36	Koivunen & Viljanmaa 2004
672	1158,88	2165,15	51.00	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
673	1158,76	2164,84	50.92	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
674	1158,76	2164,91	50.94	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
675	1158,81	2164,83	50.86	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
676	1158,87	2164,82	50.86	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
677	1158,60	2165,07	51.01	3	NATURAL PIECE OF WOOD		1	SE-NW								Koivunen & Viljanmaa 2004
678	1158,68	2165,17	50.99	3	LATH	20	1	SE-NW								Koivunen & Viljanmaa 2004
679	1158,52	2165,39	50.98	3	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
680	1158,65	2165,02	51.00	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
681					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
682					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
683					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
684					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
685					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
686					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
687	1158,20	2166,33			PILE	10			670		86		end fragment, peg-shaped end, deformed in water, birch, bark attached		37	Koivunen & Viljanmaa 2004
688					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
689					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
690					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
691					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
692					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
693					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
694					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
695					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
696					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
697					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
698					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
699					NATURAL PIECE OF WOOD											Koivunen & Viljanmaa 2004
700					LATH											Koivunen & Viljanmaa 2004
701					LATH											Koivunen & Viljanmaa 2004
702					LATH											Koivunen & Viljanmaa 2004
703					LATH											Koivunen & Viljanmaa 2004
704					LATH											Koivunen & Viljanmaa 2004
705					LATH											Koivunen & Viljanmaa 2004
706					LATH											Koivunen & Viljanmaa 2004
707					LATH											Koivunen & Viljanmaa 2004
708					LATH											Koivunen & Viljanmaa 2004
709					LATH											Koivunen & Viljanmaa 2004
710					LATH											Koivunen & Viljanmaa 2004
711					LATH											Koivunen & Viljanmaa 2004
712					LATH											Koivunen & Viljanmaa 2004
713					LATH											Koivunen & Viljanmaa 2004
714					LATH											Koivunen & Viljanmaa 2004
715					LATH											Koivunen & Viljanmaa 2004
716					LATH											Koivunen & Viljanmaa 2004
717					LATH											Koivunen & Viljanmaa 2004
718					LATH											Koivunen & Viljanmaa 2004
719					LATH											Koivunen & Viljanmaa 2004
720	1159,48	2164,71			PILE	10			1120		68		end fragment, peg-shaped end		38	Koivunen & Viljanmaa 2004
721	1157,34	2166,04			PILE	10			360		46		point fragment, pencil-shaped point (5 facets)		39	Koivunen & Viljanmaa 2004
722					LATH											Koivunen & Viljanmaa 2004
723					LATH											Koivunen & Viljanmaa 2004
724					LATH											Koivunen & Viljanmaa 2004
725					LATH											Koivunen & Viljanmaa 2004
726					LATH											Koivunen & Viljanmaa 2004
727					LATH											Koivunen & Viljanmaa 2004
728					LATH											Koivunen & Viljanmaa 2004
729					LATH											Koivunen & Viljanmaa 2004
730					PILE											Koivunen & Viljanmaa 2004
731					PILE											Koivunen & Viljanmaa 2004
732					PILE											Koivunen & Viljanmaa 2004
733					PILE											Koivunen & Viljanmaa 2004
734					WORKED WOOD											Koivunen & Viljanmaa 2004
735	1157,36	2166,56	50.96	3	STAKE	10	1	NW-SE					fragment, notched end			Koivunen & Viljanmaa 2004
736	1157,29	2166,79	51.00	3	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
737	1157,15	2166,77	51.02	3	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
738	1157,35	2166,75	51.00	3	BIRCH BARK BINDING	20	1	SW-NE					willow twig inside			Koivunen & Viljanmaa 2004
739	1157,08	2166,62	51.07	3	PILE	10	1	NW-SE								Koivunen & Viljanmaa 2004
740	1157,35	2166,19	50.90	3	NATURAL PIECE OF WOOD		1	SW-NE								Koivunen & Viljanmaa 2004
741	1157,55	2166,02	50.90	3	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
742	1157,21	2166,64	50.94	3	PILE	10	1	SW-NE								Koivunen & Viljanmaa 2004
743	1157,55	2166,24	50.91	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
744	1157,58	2166,10	50.90	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
745	1157,68	2166,13	50.89	3	PILE	10	1	SE-NW	570		81		chisel-shaped end		40	Koivunen & Viljanmaa 2004
746	1157,69	2166,28	50.94	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
747	1157,61	2166,32	50.92	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
748	1157,41	2166,20	50.88	3	NATURAL PIECE OF WOOD		1	SW-NE					root			Koivunen & Viljanmaa 2004
749	1157,29	2166,68	50.88	3	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
750	1157,16	2166,49	50.93	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
751	1157,26	2166,27	50.88	3	LATH	20	1	NW-SE								Koivunen & Viljanmaa 2004
752	1157,23	2166,49	50.88	3	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
753	1157,20	2166,04	50.98	3	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
754	1157,06	2166,02	50.93	3	PILE	10	1	SW-NE					end fragment, tool marks, in trench section			Koivunen & Viljanmaa 2004
755	1157,03	2165,94	50.93	3	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
756	1157,07	2165,98	50.93	3	LATH	20	1	SW-NE								Koivunen & Viljanmaa 2004
757	1163,39	2166,18	50.90	1	PILE	10	1	NW-SE	630		59		point fragment, pencil-shaped point (4 facets), cut off with shovel when recovering lath screen section, in trench section		41	Koivunen & Viljanmaa 2004
758	1163,49	2165,76	50.90	1	PILE	10	1	NW-SE					point fragment, angular point, end cut off			Koivunen & Viljanmaa 2004
759	1163,26	2166,33	50.90	3	NATURAL PIECE OF WOOD		1	NW-SE								Koivunen & Viljanmaa 2004
760	1163,17	2166,35	50.93	3	PILE	10	1	SW-NE					end fragment, tool marks, in trench section			Koivunen & Viljanmaa 2004
761					PILE	10			1610		100		pencil-shaped point (7 facets), concave facets, found during improved drainage by landowner, dendro sample FIO3917=SBC		42	Koivunen & Viljanmaa 2004

APPENDIX III

List of stationary wooden fishing structures found in Finnish wetlands

APPENDIX III: LIST OF STATIONARY WOODEN FISHING STRUCTURES FOUND IN FINNISH WETLANDS

Site	ETRS-TM35FIN N	ETRS-TM35FIN E	Dating	Cathegory	Setting	Reference	Site protection status	Discovery circumstances	Site verification
Enonkoski Aholahti	6901571	596778	undefined	fish traps and weirs	accretion, lake	1000007857 (NBA site register: archaeological site)	protected	archaeological survey	verified
Enonkoski Karjalanlahti	6895024	602635	undefined	fish traps and weirs	accretion, lake	1000007860 (NBA site register: archaeological site)	protected	archaeological survey	verified
Espoo Kattilajärvi	6687617	368181	undefined	fish traps	underwater, lake	2372 (NBA site register: archaeological site)	protected	personal communication	unverified
Muulo (Mulby) Lasilaakso	6674374	366358	historical (medieval)	fish weir	clay/alluvial, estuary	1000027427 (NBA site register: removed archaeological site)	not protected	construction accident	verified
Evijärvi Katiskaneva	7028974	314378	Stone Age	fish traps	peatland, lake	(NBA ethn.col. inquiry)	not protected	drainage accident	unverified
Evijärvi Kultalahti	7031494	323145	Stone Age	fish traps	peatland, lake	(NBA ethn.col. inquiry)	not protected	personal communication	unverified
Evijärvi Sulkajärvi	7040167	316511	historical	fish trap	underwater, lake	NBA arch. col. KM 32040 (Koivisto 2012, Koivisto & Nurminen 2015)	not protected	personal communication	unverified
Haapajärvi Lamminoja	7066819	417000	undefined	fish weirs	peatland, lake	1000018519 (NBA site register: archaeological site) (Koivisto & Numinen 2015, Koivisto et al.forthcoming)	protected	drainage accident	verified
Hämeenlinna Paslammi	6785223	383777	undefined	fish trap	underwater, lake	pers. com. Jyri Saukkonen	not protected	personal communication (by archaeologist)	verified
Hämeenlinna Varikonniemensuo	6765770	363329	Bronze Age	fish weir	lakeshore, peat, clay	1000027906 (NBA site register: archaeological site)	protected	archaeological excavation	verified
Hollola Valkjärvi	6766306	401674	undefined	fish trap	underwater, lake	2686 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Humppila Järvensuo 1	6758525	299233	Stone Age/Early Metal Age	fish weir	peatland, lake	103010001 (NBA site register: archaeological site, unreported and unpublished materials	protected	drainage accident	verified
Ilomantsi Muje-Oulu	6977751	710325	undefined	fish weir	underwater, lake	1000027487 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Ilomantsi Valkeajärvi 2	6979288	709128	undefined	fish weir	underwater, lake	1000027488 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Joensuu Pitkälampi itäranta	6946103	685766	Stone Age?	fish trap	underwater, lake	2572 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Jämsä Toivila	6861556	404438	undefined	fish trap	undefined	NBA ethn.col. KM 7640:2 (Minkkinen 1999)	not protected	personal communication	unverified
Jämsä Arvaja Tuiskujärvi	6848572	406891	historical	fish traps	underwater, lake	1000001480 (NBA site register: archaeological site)	protected	dredging accident	verified
Kesälahti Hiidenniemi	6860147	642224	Early Metal Age	fish weir	peatland, lake	1000003341 (NBA site register: archaeological site) (Forsberg et al. 2009, Koivisto 2012, Koivisto & Nurminen 2015)	protected	archaeological excavation	verified
Kannonkoski Pudasjärvi Sepänlahti	6982495	410313	historical	fish trap	underwater, lake	1000003586 (NBA site register: potential archaeological site)	not protected	archaeological survey	verified
Kemijärvi Poojoki 2	7423780	477436	historical	fish weir	underwater, river/lake	1000029311 (NBA site register: archaeological site)	protected	archaeological survey	verified
Kemijärvi Vianlammit	7408836	496714	historical	fish weir	underwater, lake, inlet	1000029310 (NBA site register: archaeological site)	protected	archaeological survey	verified
Keuruu Ketvelniemen liitekatiska	6906055	379864	historical	fish trap	underwater, lake	2636 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Keuruu Kiuassaaren liistekatiskat	6890358	378064	undefined	fish traps	underwater, lake	2129 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Kokkola Ahoniemi-Rapakkolahti	7058440	355052	Stone Age	fish weirs	peatland, lake	1000007380 (NBA site register: potential archaeological site)	not protected	drainage accident	verified
Kotka Hevossalmen kalastuslaite	6702046	492920	undefined	fish weirs	underwater, sea	1000023033 and 2569 (NBA site register: potential archaeological sites)	not protected	personal communication	verified
Konnevesi Soskalansalmi	6945888	468302	historical	fish traps	underwater, lake	1000001052 (NBA site register: archaeological site)	protected	archaeological survey	verified
Kuhmo Lapinjoki	7149374	611880	historical	fish weir	underwater, river	1000016487 (NBA site register: archaeological site)	protected	personal communication	verified
Kuhmo Teeripuro	7135915	617002	undefined	fish weir	underwater, brook	290010014 (NBA site register: archaeological site)	protected	personal communication	verified
Kuhmoinen Kangasjärvi	6827436	391101	historical	fish trap	underwater, lake	1000018932 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Kurikka Hiipakanluhta	6951575	264039	Stone Age	fish trap	peatland, lake	NBA arch. col. KM 27368, 28340 (Jungner & Sonninen 1998, Koivisto 2012, Koivisto & Nurminen 2015)	not protected	drainage accident	verified
Kurikka Tainusjärvi Honkilampi	6965117	249244	Stone Age	fish trap	peatland, lake	NBA ethn.col. KM 9460 (inquiry)	not protected	drainage accident	unverified
Kuusamo Askinjoki Myllykoski	7334945	587759	historical	fish weir	underwater, river	1000021195 (NBA site register: cultural heritage site)	not protected	personal communication	verified
Kuusamo Juuma, Yli-Juumajärvi	7352216	606735	Stone Age?	fish weir	underwater, lake	305010054 (NBA site register: archaeological site)	protected	archaeological survey	verified
Kuusamo Pikku-Veska	7336984	596129	undefined	fish weir	underwater, lake	pers. com. Olli-Pekka Maunula	not protected	personal communication	unverified
Laukaa Kynsivesi Mäntysaari	6922168	460495	undefined	fish trap	underwater, lake	1000001055 (NBA site register: archaeological site)	protected	personal communication	verified
Lappajärvi Lamminkylä	7021566	330341	undefined	fish trap	undefined	NBA ethn.col. KM 9749 (Minkkinen 1999)	not protected	personal communication	unverified
Lohja Peräahde-Hotopohja	6679699	317616	Stone Age?	fish traps and weirs	peatland, lake	223010012 (NBA site register: archaeological site)	protected	drainage accident	verified
Loimaa	6752359	286381	undefined	fish trap	undefined	NBA ethn.col. KM 8764 (Minkkinen 1999)	not protected	personal communication	unverified
Loppi Purinlahti 2	6736900	340417	historical	fish trap	underwater, lake	1000018829 (NBA site register: potential archaeological site)	not protected	personal communication	verified
Mikkeli Tervahaudansaari	6814763	517658	undefined	fish trap	underwater, lake	pers. com. Sanna Kivimäki	not protected	personal communication (by archaeologist)	unverified

APPENDIX III: LIST OF STATIONARY WOODEN FISHING STRUCTURES FOUND IN FINNISH WETLANDS

Site	ETRS-TM35FIN N	ETRS-TM35FIN E	Dating	Cathegory	Setting	Reference	Site protection status	Discovery circumstances	Site verification
Mikkeli Puustellinluhta	6814055	517922	undefined	fish weir	underwater, lake	pers. com. Sanna Kivimäki	not protected	personal communication (by archaeologist)	unverified
Mänttä-Vilppula Ruohosalmi	6878015	363394	historical	fish weir	underwater, lake	1000001988 (NBA site register: archaeological site)	protected	personal communication	verified
Nivala Ruosteneva	7091985	387956	undefined/Stone Age?	fish trap	peatland, alluvial clay	survey report (Koivisto 2005)	not pretected	personal communication	verified
Nivala Salmensuu	7094496	404671	multiperiod	fish traps and weirs	peatland, lake?	535010001 (NBA site register: archaeological site)	protected	dredging accident	verified
Nokia Tuulosjärvi	6806104	305738	Iron Age?	fish trap	underwater, lake	1000007107 (NBA site register: find spot)	not protected	clay digging accident	verified
Nurmes Peurajärvi Jäkäläkangas	7079238	607800	undefined	fish weir	underwater, brook	1000024658 (NBA site register: potential archaeological site)	not protected	archaeological survey	verified
Oulu Oulujoki Turkansaari	7202718	439299	historical	fish weir	underwater, river	2670 (NBA site register: archaeological site)	protected	personal communication	verified
Oulu (Yli-Ii) Purkajasuo	7250136	448359	Stone Age	fish traps	peatland, estuary	972010012 (NBA site register: archaeological site) (Koivisto 2011; 2012, Koivisto & Nurminen 2015)	protected	drainage accident	verified
Pelkosenniemi Rajaojan suu	7436521	509387	undefined	fish trap	underwater, brook	pers. com. Pekka Nyman	not protected	dredging accident	unverified
Pihtipudas Olloven kalapato	7051518	417073	historical	fish weir	underwater, river	1000004793 (NBA site register: potential archaeological site)	not protected	archaeological survey	verified
Polvijärvi Tyttölampi	6957996	625184	undefined	fish weir	underwater, lake	1000012387 (NBA site register: archaeological site)	protected	personal communication	verified
Pudasjärvi Tuulisalmi	7250306	495460	historical	fish weir	underwater, lake	1000006069 (NBA site register: archaeological site)	protected	personal communication	verified
Punkaharju Vaara	6860318	639015	undefined	fish trap	undefined	NBA ethn.col. KM 8779: A (Minkkinen 1999)	not protected	personal communication	unverified
Puumala Kirkonkylä	6822275	562943	undefined	fish trap	undefined	NBA ethn.col. KM 10891 (Minkkinen 1999)	not protected	personal communication	unverified
Puumala Ihalaisenlahti	6814090	541210	undefined	fish trap	underwater, lake	1000022708 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Pyhäjärvi Peltola	7066000	448889	Stone Age?	fish traps and weirs	peatland, lake	1000000310 (NBA site register: archaeological site)	protected	dredging accident	verified
Rantasalmi Auvinlahti	6887142	564524	undefined	fish trap	underwater, lake	1000006014 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Ranua Kultiharju 2	7329693	505018	undefined	fish weir	underwater, lake	1000025095 (NBA site register: potential archaeological site)	not protected	archaeological survey	verified
Rautalampi Rautalampi Talassaari	6933557	481916	undefined	fish trap	underwater, lake	pers. com. Pertti Postari	not protected	personal communication	unverified
Reisjärvi Säyrysjärvi	7044858	403868	historical	fish weir	underwater, lake	1000007059 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Rovaniemi Pitkäloukon pää	7414947	478765	undefined	fish weir	underwater, lake	1000024395 (NBA site register: archaeological site)	protected	personal communication	verified
Rääkkylä Majasalmi	6911619	631211	historical	fish trap	underwater, lake	1000004153 (NBA site register: archaeological site)	protected	archaeological inspection	verified
Rääkkylä Siimeslahti	6912934	622829	historical	fish traps	underwater, lake	1000004152 (NBA site register: archaeological site)	protected	archaeological inspection	verified
Rääkkylä Vänskänsalmi	6911457	634129	historical	fish traps	underwater, lake	1000004154 (NBA site register: archaeological site)	protected	archaeological inspection	verified
Saarijärvi Koskenlahti	6955510	416256	Stone Age?	fish trap	peatland, river estuary, lake	729010039 (NBA site register: archaeological site)	protected	peat cutting accident	verified
Saarijärvi Ruokonen	6957083	375879	historical (CE 19th century)	fish traps	underwater, lake	1000003592 (NBA site register: cultural heritage site)	not protected	drainage accident	verified
Savonlinna (former Sääminki)	6862273	598286	undefined	fish trap	undefined	NBA ethn.col. KM 10504 (Minkkinen 1999)	not protected	personal communication	unverified
Savonlinna Everlahti	6862835	595232	undefined	fish trap	underwater, lake	1000027573 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Savonlinna Huovananlahti	6858817	638233	undefined	fish trap	underwater, lake	1000027194 (NBA site register: potential archaeological site)	not protected	personal communication	verified
Savonlinna Suurijoki	6915901	615693	historical	fish weir	underwater, river	1000014775 (NBA site register: removed archaeological site)	not protected	personal communication	verified
Sulkava Partalansaari Hämeenlahti	6838091	570893	undefined	fish trap	underwater, lake	pers. com. Juhani Ojala	not protected	personal communication	unverified
Sulkava Pisamalahden linnavuori	6847388	569662	undefined	fish trap	underwater, lake	768010009 (NBA site register: archaeological site)	protected	personal communication	unverified
Suomussalmi Ala-Valkeainen 1	7262716	610142	historical	fish weir	underwater, lake	1000020945 (NBA site register: cultural heritage site)	not protected	archaeological survey	verified
Suomussalmi Antinjärvensalmi	7248771	596120	historical	fish weir	underwater, lake	1000019080 (NBA site register: archaeological site)	protected	archaeological survey	verified
Suomussalmi Iso-Valkeainen	7264805	609682	historical	fish weirs	underwater, lake	1000020842 (cluster of fishing structures at Lake Iso-Valkeainen in NBA site register: cultural heritage sites)	not protected	archaeological survey	verified
Suomussalmi Keski-Valkeainen	7263054	610184	historical (CE 18th-19th centuries)	fish weirs	underwater, lake	1000020921 (cluster of fishing structures at Lake Keski-Valkeainen in NBA site register: cultural heritage sites)	not protected	archaeological survey	verified
Suomussalmi Öllöri 2	7261379	618306	historical (CE 19th century)	fish weir	underwater, lake	1000020946 (NBA site register: cultural heritage site)	not protected	archaeological survey	verified
Suonenjoki Pieni Uuhijärvi	6927936	510495	undefined	fish weir	underwater, lake	1000006203 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Taipalsaari Läpsynen	6779356	571017	undefined	fish trap	underwater, lake	pers. com. Kari Paasonen	not protected	personal communication	unverified
Taivalkoski Latvajoen suu	7289270	546030	prehistoric	fish weir	underwater, lake, river estuary	832010071 (NBA site register: archaeological site)	protected	personal communication	verified

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Site	ETRS-TM35FIN N	ETRS-TM35FIN E	Dating	Cathegory	Setting	Reference	Site protection status	Discovery circumstances	Site verification
Taivalkoski Rääpysjärvi	7285859	557112	undefined	fish traps	underwater, lake	1000006408 (NBA site register: potential archaeological site)	not protected	personal communication	verified
Tammela Mustiala	6747036	324407	undefined	fish trap	undefined	NBA ethn.col. KM 9663 (Minkkinen 1999)	not protected	personal communication	unverified
Tammela Pernunjärvi 1	6739441	338160	undefined	fish traps	underwater, lake	2449 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Tervo	6980125	487406	undefined	fish trap	undefined	NBA ethn.col. KM 8526:1 (Minkkinen 1999)	not protected	personal communication	unverified
Tervo Kaislakaarre	6974595	489128	undefined	fish traps	underwater, lake	1000023726 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Tervo Tervonsalmi	6980452	488279	undefined	fish trap	underwater, lake	1000022889 (NBA site register: potential archaeological site)	not protected	personal communication	unverified
Tohmajärvi Salmilampi	6912898	673877	undefined	fish weir	underwater, lake	1000020450 (NBA site register: potential archaeological site)	not protected	personal communication	verified
Utajärvi Särkijärvi	7199556	509178	undefined	weirs and traps	underwater, lake	Koivunen 2001	not protected	archaeological mapping	verified (but not protected!)
Vesanto Iso- ja Pieni Palosaari	6966925	470346	undefined	fish traps	underwater, lake	pers. com. Erkki Kiiskinen	not protected	personal communication	unverified
Vesanto Palvaniemi	6965700	480067	undefined	fish traps	underwater, lake	921010011 (NBA site register: archaeological site)	protected	archaeological survey	verified
Vesanto Riihilahti	6969485	469070	undefined	fish traps	underwater, lake	pers. com. Erkki Kiiskinen	not protected	personal communication	unverified
Virrat	6904245	332915	undefined	fish trap	undefined	NBA ethn.col. KM 8161:9 (Minkkinen 1999)	not protected	personal communication	unverified
Virrat Marttisenalainen	6907349	329222	undefined	fish trap	underwater, lake	1000025001 (NBA site register: cultural heritage site)	not protected	personal communication	unverified
Vöyri Käldamäki	7011713	257144	Iron Age	fish trap	clay/alluvial, coastal	944010013 (NBA site register: archaeological site)	protected	drainage accident	verified
Ylivieska	7107185	380504	Stone Age	fish trap	undefined	NBA ethn. col? (Minkkinen 1999)	not protected	personal communication	unverified
Ähtäri Jäkälänlahti	6930303	343902	historical	frish trap	underwater, lake	1000025696 (NBA site register:archaeological site)	protected	personal communication	verified
Äänekoski Lekolahti	6965310	439254	historical	fish traps	underwater, lake	1000001054 (NBA site register: archaeological site)	protected	personal communication	verified